

# content

## POWER CABLES

<b>POWER CABLES</b>	2
Power cables up to 500 V	8
Fire retardant and fire-proof cables up to 500 V	8
PVC power cables 0,6/1 kV	9
Fire-retardant and fire-proof cables up to 0,6/1 kV	13
Fire-retardant and fire-proof cables 0,6/1 kV KERAMEX®	54

## WEAK-CURRENT CABLES

<b>WEAK-CURRENT CABLES</b>	84
PVC communication cables up to 100 V	88
Fire-retardant and fire-proof communication cables up to 100 V	90
Installation cables up to 300 V	97
PVC weak-current cable up to 500 V	99
Fire-retardant and fire-proof weak-current cables up to 500 V	102

## DATA CABLES

<b>DATA CABLES</b>	121
PVC coaxial cables	125
Fire-retardant and fire-proof coaxial cables	126
Optical cables OPTEX®	128

## SPECIAL CABLES

<b>SPECIAL CABLES</b>	131
Compensation and thermocouple lines	135
Special cables BESY	143
Cables for nuclear energetics	144
Flexible and highly flexible cables	145

## SPECIFIC PRODUCTS OFFER

<b>SPECIFIC PRODUCTS OFFER</b>	148
BURNEX®	151
TRUBEX®	152
LIGHTEX®	154
Hermetic cable bushings and cable sets	155

<b>TESTING LABORATORY</b>	163
<b>TERMS OF TRADE</b>	167
<b>REFERENCE</b>	168



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# POWER CABLES





# POWER CABLES

## glossary of terms

### product features

**halogen-free** - the components of a halogen-free product are made of exclusively halogen-free material. If a halogen-free product is on fire, no corrodible gasses are produced. Cables are supposed to be halogen-free if they meet the recommendations of the ČSN EN 50267 standard. These products usually meet other standards for a lower production of smoke under fire conditions (ČSN EN 50268)

**for places with the threat of explosion** thanks to their construction and materials used, the product does not transmit axially dangerous vapours

Ⓢ the EŠC sign stands for the compliance between the features of the marked products with the standards on electrical safety.

**sparking-safe circuits** do not produce a dangerous electrical charge level in its environment

**fire non-effusing** (product marked by Ⓢ) has an enhanced resistance to the effect of flame under fire conditions of a bundle. The products marked by this sign must meet the ČSN EN 50266 A F/R, A, B, C or D. In this case, the letter suffix stands for a different testing methodology varying mainly in the time for which the flame effects the cable and in the number of non-metal parts in the sample. The marking -R meets mainly the standard in class A (other marking -F/R, -R, -R/B, -R/C, -R/D)

**fire-proof** (product marked by ⓈⓈ) a product with insulation integrity with enhanced resistance to flame during a test according to ČSN IEC 60 331, with a given gasflow, the dimensions of the burner and the temperature higher than 750°C

**LOCA** maximum project accident on a NPP, the cable is resistant to ionizing radiation

**E-90** cables with retained functionality E 90 according to DIN 4102-12, in combination with cable system complying with the same requirements

**E - 30** cables with retained functionality E 30 according to DIN 4102-12, in combination with cable system complying with the same requirements

### identification of standards

**ASTM** American standard of testing materials (USA)

**ANSI** American national standards institute (USA)

**BS** British standard (Great Britain)

**CEN** European Committee for Standardization (Brussels) - the abbreviation is derived from the French name of the commity: Comité Européen de Normalisation, established in 1975

**ČSN** Czech national standard

**ČSN EN** Czech version of a European standard

**ČSN IEC** Czech version of an international standard

**DEP** Design and Engineering Practise - Shell construction standards

**DIN** Deutsches institut für normung (Germany) - German standards

**EN** European standards

**GOST** - Soviet standards

**IEC** International Electrotechnical Commission - (Geneve), established in 1906 - international standards

**IEEE** The Institute of Electrical and Electronics Engineers

**ISO** International Organization for Standardization (Geneve) established in 1947

**MESC** Material and Equipment Standards and Code - Shell construction standards

**NFC** Normes Françaises Class C (France) - French standards

**VDE** Verein Deutscher Elektroingenieure (Germany) - German standards

### material identification

**HDPE** low-pressure polyethylen

**LDPE** high-pressure polyethylen

**PE** polyethylen

**PVC** polyvinilchloride

**XLPE** cross-linked polyethylen

### cable circuits

**CCTV** closed television circuit

**EPS** Electronic fire alarm system

**GAS** circuits for gas detection

**MaR** measurement and regulation circuits









































# POWER CABLES

## conductor marking

### ČSN 330 166 ed. 2:2002

	cables for fixed bedding		cords and flexible cables	
	J	O	G	X
2 - core				
3 - core				
4 - core				
5 - core				
multicore	directional numbered		directional numbered	

### ČSN 330 165

cables for fixed bedding				
	A	B	C	D
2 - core				
3 - core				
4 - core				
5 - core				
multicore	counting - outer position counting - inner position directional other		   	   
cords and flexible cables				
	A	B	C	D
2 - core				
3 - core				
4 - core				
5 - core				
multicore	counting - outer position counting - inner position directional other		   	   

### Cable conductor colour marking

#### Power cables and flexible cords (valid from 1.7.2005)

Marked according to ČSN 330166 ed.2: 2002 standard „Marking of cables and flexible cords “. Exemption possible for cables from warehouse stock or marking according to the request from the customer.

#### Original marking

ČSN 330165:1992 „Colour and number marking of conductors.“ It was nullified by an implementing regulation as of 1.4.2006 but later it was reenforced especially for the variants that were not replaced by new marking.

# POWER CABLES

## icons



Cables and conductors designed for nominal voltage up to 500 C



Cables and conductors designed for nominal voltage up to 0,6/1kV



Maximum operating temperature at fixed bedding



Minimum operating temperature at fixed bedding



Cables for indoor use



Cables for outdoor use



Cables designed for burial into ground



Cables with low smoke effusion at combustion, halogen-free



Self-extinctive cables according to IEC 60 332-1; EN 50 265-2-



Fire-retardant cables according to IEC 60 332-3-22 cat. A; EN 50 266-2-2 cat. A



Fire-proof cables according to IEC 60 331



Cables resistant to solutions pH 4-11



Cables meet the requirements of refineries, generally stated in MESG SPEC 68.51/001 and DEP 32.37.20.10-Gen. documents



Cables are designed for the environment with the threat of explosion Zone 0;1;2 at the compliance with the requirements of sparking security according to IEC 79-11.

### derived variants



**ZE** - cables equipped with light armour, with FeZn braiding at 75% overlap



cable shielded by Cu foil with high shielding effect - EMC



**AR** - cables equipped with armour made of Al wrapping or of FeZn wires and simultaneous binding wind by FeZn tape.



**LOCA** - cables designed for bedding in environment with higher level of ionizing radiation. Primarily, these cables are qualified for hermetic zones of nuclear power stations..



**WB** - cables resistant to longitudinal penetration of liquids through the cable core.



# POWER CABLES

## product overview

### PVC POWER CABLES UP TO 500V

C5YKYL	8
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### FIRE-RETARDANT AND FIRE-PROOF CABLES UP TO 500V

C5EKEL	8
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### PVC POWER CABLES 0,6 - 1 kV

1-CYKFY	9
1-CYKY	9

### FIRE-RETARDANT AND FIRE-PROOF CABLES 0,6 - 1 kV

1-CE-R (C2E;C5E)	13
1-CXKE-R	16
1-CHKE-R	21
1-CXFE-R	25
1-CHFE-R	25
1-C5XKE-R	29
1-C5XFE-R	29
1-CHKFH-R	34
1-CE-V (C2E;C5E)	35
1-CXKE-V	36
1-CHKE-V	40
1-CXFE-V	43
1-CHFE-V	46
1-C5XKE-V	48
1-C5HKE-V	48
1-C5XFE-V	51
1-C5HFE-V	51
1-CHKFH-V	53

All products comply with the 2002/95/EC RoHS regulation that bans the use of certain dangerous substances in electrical and electronical devices.

# POWER CABLES

## product overview

### FIRE-RETARDANT AND FIRE-PROOF CABLES 0,6 - 1 kV KERAMEX® LINE

1-CXKE-R KERAMEX®	54
1-CHKE-R KERAMEX®	58
1-CXKH-R KERAMEX®	62
1-CHKH-R KERAMEX®	66
1-CXKE-V KERAMEX®	69
1-CHKE-V KERAMEX®	73
1-CXKH-V KERAMEX®	77
1-CHKH-V KERAMEX®	81

All products comply with the 2002/95/EC RoHS regulation that bans the use of certain dangerous substances in electrical and electronic devices.

#### conductor parameters

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
 - full copper conductors with the nominal cross-section of 25 mm² and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter



# POWER CABLES do 500 V

**CYKYL; CEKEL; C5YKYL; C5EKEL**

cables for fixed and free bedding

## use

KABELOVNA KABEX® a.s. has launched a series of flat cables as a response to the demand for the recovery of installations in older housing premises, especially in panel buildings. A simple subsurface installation of flat cables under plastering is supported by a specially designed cable shape with reverse hooks for easy cable installation or wedging into previously milled precise groove, e.g. for the reconstruction of panel houses and others, without the use of other fixing elements. Flat fire-non-effusing cables can be supplied as well with a self-adhesive tape for fixing the cable directly on the surface - e.g. for the installation in loft premises and other premises with the threat of fire.

## features

- min. bending semi-diameter 5 x cable width
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- Colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in black and orange or according to order  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.

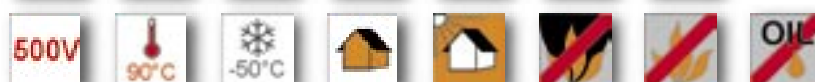


CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

CYKYL



CEKEL-R



CEKEL-V



## dimension variants

core cross-section (mm <sup>2</sup> )	jacket thickness in (mm)	jacket (cable) dimensions based on the number of conductors			
		2x cross-section	3x cross-section	4x cross-section	5x cross-section
0,35	1	6,5 x 3,4	8,2 x 3,4	9,6 x 3,4	11,0 x 3,4
0,5	1	6,9 x 3,6	8,6 x 3,6	10,2 x 3,6	11,8 x 3,6
0,75	1	7,4 x 3,8	9,2 x 3,8	11,0 x 3,8	12,8 x 3,8
1,0	1	8,2 x 4,2	10,4 x 4,2	12,6 x 4,2	14,8 x 4,2
1,5	1	8,6 x 4,4	11,0 x 4,4	13,4 x 4,4	15,8 x 4,4
2,5	1	9,6 x 4,8	12,2 x 4,8	15,0 x 4,8	17,8 x 4,8

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001504	CEKEL-R 3Cx1,5 /b/-/	3 200	2,4	108	41

# POWER CABLES PVC 0,6 -1 kV

## 1-CYKY; 1-CYKFY

PVC cables for fixed bedding

### use

PVC cables are designed especially for the use in HT and EHT distribution stations, shielded cables for the connection in systems where a high resistance to interference (EMC) is required, in impulse supply circuits with frequency converters and in all places demanding higher protection against the penetration or radiation of interfering signals. During each cabling the concentric shielding conductor may be used as the protective one - central or neutral conductor. At the same time, it can serve as an earthing protection and shielding. CYKY cables are recommended as a modification especially as a supplement of larger investment complexes.

### features

- cables with PVC conductor and jacket insulation
- max. permitted core temperature is 70 °C
- min. bending semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in black or according to order.

We offer cables for ground burial with PE + PVC jacket.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,75 mm<sup>2</sup></b>					
1001128	1-CYKFY 5Dx0,75 /č/-/	3,900	11.7	216	83
<b>1 mm<sup>2</sup></b>					
1001095	1-CYKFY 2x1 /č/-/	3,600	9.5	143	56
1003983	1-CYKFY 2Ax1 /č/-/	3,600	9.5	143	56
1001132	1-CYKFY 5x1 /č/-/	3,600	12.1	237	97
1003207	1-CYKFY 7x1 /č/-/	3,600	12.1	256	115
1004086	1-CYKFY 7Dx1 /č/-/	3,600	12.1	256	115
1003277	1-CYKFY 12Dx1 /č/-/	1,500	14.8	384	175
1004941	1-CYKFY-O 12x1 /č/-/	3,400	14.8	383	175
1001081	1-CYKFY 19x1 /č/-/	2,500	16.7	511	248
1003982	1-CYKFY 19Dx1 /č/-/	2,500	16.7	513	248
1004990	1-CYKFY-O 19x1 /č/-/	1,600	16.7	511	248
<b>1,5 mm<sup>2</sup></b>					
1001096	1-CYKFY 2x1,5 /č/-/	2,300	10.5	175	70



# POWER CABLES PVC 0,6 -1 kV

## 1-CYKY; 1-CYKFY

PVC cables for fixed bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001089	1-CYKFY 2Ax1,5 /č/-/	2,400	10.5	176	70
1001102	1-CYKFY 3x1,5 /č/-/	2,300	11.0	203	86
1003932	1-CYKFY 3Ax1,5 /č/-/	2,400	11.0	203	86
1001099	1-CYKFY 3Cx1,5 /č/-/	2,400	11.0	203	86
1004967	1-CYKFY-J 3x1,5 /č/-/	2,400	11.0	203	86
1005662	1-CYKFY-O 3x1,5 /č/-/	2,400	11.0	203	86
1001119	1-CYKFY 4x1,5 /č/-/	2,400	12.9	268	110
1001108	1-CYKFY 4Bx1,5 /č/-/	2,400	12.9	268	110
1001112	1-CYKFY 4Cx1,5 /č/-/	2,400	12.9	268	110
1001114	1-CYKFY 4Dx1,5 /č/-/	2,400	12.9	268	110
1005154	1-CYKFY-J 4x1,5 /č/-/	2,400	12.9	268	110
1005007	1-CYKFY-O 4x1,5 /č/-/	2,400	12.9	268	110
1001124	1-CYKFY 5Cx1,5 /č/-/	2,400	13.1	288	125
1001129	1-CYKFY 5Dx1,5 /č/-/	2,400	13.1	288	125
1005033	1-CYKFY-J 5x1,5 /č/-/	2,400	13.1	288	125
1005032	1-CYKFY-O 5x1,5 /č/-/	2,400	13.1	288	125
1001139	1-CYKFY 7x1,5 /č/-/	2,400	13.4	323	153
1001133	1-CYKFY 7Cx1,5 /č/-/	2,300	13.4	323	153
1001136	1-CYKFY 7Dx1,5 /č/-/	2,400	13.4	323	153
1005035	1-CYKFY-J 7x1,5 /č/-/	2,300	13.4	323	153
1005004	1-CYKFY-O 7x1,5 /č/-/	2,400	13.4	323	153
1001074	1-CYKFY 12x1,5 /č/-/	2,300	16.8	504	239
1001069	1-CYKFY 12Cx1,5 /č/-/	2,300	16.8	504	239
1001071	1-CYKFY 12Dx1,5 /č/-/	2,400	16.8	504	239
1005038	1-CYKFY-J 12x1,5 /č/-/	2,400	16.8	504	239
1004966	1-CYKFY-O 12x1,5 /č/-/	2,300	16.8	504	239
1001082	1-CYKFY 19x1,5 /č/-/	1,800	19.6	705	347
1001077	1-CYKFY 19Cx1,5 /č/-/	1,700	19.6	710	347
1001079	1-CYKFY 19Dx1,5 /č/-/	1,800	19.6	710	347
1004968	1-CYKFY-J 19x1,5 /č/-/	1,800	19.6	705	347
1005003	1-CYKFY-O 19x1,5 /č/-/	1,800	19.6	705	347
1001088	1-CYKFY 24x1,5 /č/-/	1,200	22.9	925	432
1001085	1-CYKFY 24Cx1,5 /č/-/	1,200	22.9	916	432
1001087	1-CYKFY 24Dx1,5 /č/-/	1,200	22.9	916	432
1005093	1-CYKFY-O 24x1,5 /č/-/	1,200	22.9	925	432
1005464	1-CYKFY-O 27x1,5 /č/-/	1,100	23.7	1,003	477
1001098	1-CYKFY 37x1,5 /č/-/	900		1,226	622
1005009	1-CYKFY-J 37x1,5 /č/-/	900	25.4	1,226	622
1005465	1-CYKFY-O 37x1,5 /č/-/	900	25.4	1,226	622
<b>2,5 mm²</b>					
1004085	1-CYKFY 2x2,5 /č/-/	1,800	11.3	214	93
1004844	1-CYKFY 2x2,5 /o/-/	1,800	11.3	215	93
1001090	1-CYKFY 2Ax2,5 /č/-/	1,800	11.3	214	93
1001093	1-CYKFY 2Dx2,5 /č/-/	1,800	11.3	214	93

# POWER CABLES PVC 0,6 -1 kV

## 1-CYKY; 1-CYKFY

PVC cables for fixed bedding

power  
cables

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1005462	1-CYKFY-O 2x2,5 /č/-/	1,800	11.3	214	93
1005470	1-CYKFY 3x2,5 /č/-/	1,800	12.1	254	119
1001100	1-CYKFY 3Cx2,5 /č/-/	1,800	12.1	254	119
1005467	1-CYKFY-J 3x2,5 /č/-/	1,800	12.1	254	119
1001121	1-CYKFY 4x2,5 /č/-/	1,800	12.8	302	146
1001110	1-CYKFY 4Bx2,5 /č/-/	1,800	12.8	301	146
1001113	1-CYKFY 4Cx2,5 /č/-/	1,800	12.8	301	146
1001116	1-CYKFY 4Dx2,5 /č/-/	1,800	12.8	301	146
1005011	1-CYKFY-J 4x2,5 /č/-/	1,800	12.8	301	146
1004965	1-CYKFY-O 4x2,5 /č/-/	1,800	12.8	301	146
1004992	1-CYKFY-O 4x2,5 /o/-/	1,800	12.8	301	146
1001125	1-CYKFY 5Cx2,5 /č/-/	1,800	13.7	352	173
1001130	1-CYKFY 5Dx2,5 /č/-/	1,800	13.7	352	173
1005002	1-CYKFY-O 5x2,5 /č/-/	1,800	13.7	352	173
1004993	1-CYKFY 7x2,5 /č/-/	1,800	14.6	420	223
1001140	1-CYKFY 7x2,5 /č/-/	1,800	14.6	420	223
1001134	1-CYKFY 7Cx2,5 /č/-/	1,800	14.6	416	223
1001137	1-CYKFY 7Dx2,5 /č/-/	1,800	14.6	418	223
1005005	1-CYKFY-J 7x2,5 /č/-/	1,800	14.6	421	223
1004899	1-CYKFY-O 7x2,5 /č/-/	1,800	14.6	420	223
1001075	1-CYKFY 12x2,5 /č/-/	1,800	19.1	692	358
1001070	1-CYKFY 12Cx2,5 /č/-/	1,800	19.1	692	358
1001072	1-CYKFY 12Dx2,5 /č/-/	1,800	19.1	692	358
1005037	1-CYKFY-J 12x2,5 /č/-/	1,800	19.1	692	358
1004900	1-CYKFY-O 12x2,5 /č/-/	1,800	19.1	692	358
1001083	1-CYKFY 19x2,5 /č/-/	1,400	21.6	953	529
1001078	1-CYKFY 19Cx2,5 /č/-/	1,400	21.6	953	529
1001080	1-CYKFY 19Dx2,5 /č/-/	1,400	21.6	954	529
1005158	1-CYKFY-J 19x2,5 /č/-/	1,400	3.2	953	529
1004986	1-CYKFY-O 19x2,5 /č/-/	1,400	21.6	953	529
1004901	1-CYKFY-O 19x2,5 /č/-/	1,400	21.6	953	529
1001086	1-CYKFY 24Cx2,5 /č/-/	900	25.6	1,252	663
1003430	1-CYKFY 24Dx2,5 /č/-/	900	25.6	1,255	663
1005232	1-CYKFY-O 24x2,5 /č/-/	900	25.6	1,252	663
1003963	1-CYKFY 37Cx2,5 /č/-/	700	28.2	1,683	970
<b>4 mm<sup>2</sup></b>					
1001097	1-CYKFY 2x4 /č/-/	1,400	12.4	267	125
1001091	1-CYKFY 2Ax4 /č/-/	1,400	12.4	267	125
1001094	1-CYKFY 2Dx4 /č/-/	1,400	12.4	267	125
1005404	1-CYKFY-O 2x4 /č/-/	1,400	12.4	267	125
1001106	1-CYKFY 3x4 /č/-/	1,400	13.1	322	165
1001101	1-CYKFY 3Cx4 /č/-/	1,400	13.1	322	165
1001122	1-CYKFY 4x4 /č/-/	1,400	13.9	383	206
1001111	1-CYKFY 4Bx4 /č/-/	1,400	13.9	383	206



# POWER CABLES PVC 0,6 -1 kV

## 1-CYKY; 1-CYKFY

PVC cables for fixed bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001117	1-CYKFY 4Dx4 /č/-/	1,400	13.9	383	206
1005008	1-CYKFY-J 4x4 /č/-/	1,400	13.9	383	206
1004940	1-CYKFY-O 4x4 /č/-/	1,400	13.9	383	206
1004991	1-CYKFY-O 4x4 /o/-/	1,400	13.9	383	206
1001131	1-CYKFY 5Dx4 /č/-/	1,400	14.9	453	247
1001126	1-CYKFY 5Cx4 /č/-/	1,400	14.9	453	247
1005006	1-CYKFY-J 5x4 /č/-/	1,400	14.9	453	247
1001135	1-CYKFY 7Cx4 /č/-/	1,400	16.0	550	325
1001138	1-CYKFY 7Dx4 /č/-/	1,400	16.0	547	325
1005153	1-CYKFY-O 7x4 /č/-/	1,400	16.0	547	325
1001076	1-CYKFY 12x4 /č/-/	1,400	21.0	918	530
1001073	1-CYKFY 12Dx4 /č/-/	1,400	21.0	920	530
<b>6 mm<sup>2</sup></b>					
1004964	1-CYKFY 2x6 /č/-/	1,600	13.5	331	167
1001092	1-CYKFY 2Ax6 /č/-/	1,650	13.5	331	167
1005013	1-CYKFY-O 2x6 /č/-/	1,650	13.5	331	167
1001123	1-CYKFY 4x6 /č/-/	1,600	15.2	486	285
1001118	1-CYKFY 4Dx6 /č/-/	1,600	15.2	489	285
1005012	1-CYKFY-O 4x6 /č/-/	1,600	15.2	489	285
1001127	1-CYKFY 5Cx6 /č/-/	1,600	16.4	588	345
1005034	1-CYKFY-J 5x6 /č/-/	1,600	16.4	588	345
<b>10 mm<sup>2</sup></b>					
1001103	1-CYKFY 3x10 /č/-/	1,050	16.4	576	345
1005699	1-CYKFY-J 3x10 /č/-/	1,050	16.4	576	345
1001120	1-CYKFY 4x10 /č/-/	1,000	17.5	704	441
1001115	1-CYKFY 4Dx10 /č/-/	1,000	17.5	703	441
1005010	1-CYKFY-J 4x10 /č/-/	1,000	17.5	703	441
1005094	1-CYKFY-O 4x10 /č/-/	1,000	17.5	703	441
1005570	1-CYKFY-J 5x10 /č/-/	1,000	19.6	883	540
<b>16 mm<sup>2</sup></b>					
1004988	1-CYKFY-O 2x16 /č/-/	2,100	17.3	618	368
1001104	1-CYKFY 3x16 /č/-/	1,650	19.1	825	520
1001109	1-CYKFY 4Bx16 /č/-/	1,350	20.4	1,017	671
1005505	1-CYKFY-O 4x16 /č/-/	1,350	20.4	1,017	671
1005572	1-CYKFY-J 5x16 /č/-/	1,100	22.2	1,243	825
<b>25 mm<sup>2</sup></b>					
1005702	1-CYKFY-J 4x25 /č/-/	900	25.2	1,519	1,029
1005571	1-CYKFY-J 5x25 /č/-/	600	27.5	1,874	1,268
<b>35 mm<sup>2</sup></b>					
1001105	1-CYKFY 3x35 /č/-/	900	25.7	1,580	1,078
1003600	1-CYKFY 5x35	500	30.6	2,471	1,738
<b>50 mm<sup>2</sup></b>					
1001107	1-CYKFY 3x50 /č/-/	650	28.8	2,068	1,454

# CONDUCTORS 0,6 - 1 kV

## FIRE-RETARDANT

1-CE-R; 1-C2E-R; 1-C5E-R

cables for fixed and free bedding

### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing conductors are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Conductors can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

### features

- conductors with PE conductor insulation
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x conductor diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer.

Conductor colour identification according to order.

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>1-CE-R</b>					
1000385	1-CE-R 1x0,75 /př/	90,000	2.2	10	7
1000386	1-CE-R 1x1 /př/	100,000	2.3	14	9
1000387	1-CE-R 1x1,5 /př/	100,000	2.8	21	14
1000392	1-CE-R 1x2,5 /př/	100,000	3.2	32	23
1000395	1-CE-R 1x4 /př/	35,000	3.6	46	36
1000396	1-CE-R 1x6 /př/	25,000	4.2	66	54
1003522	1-CE 4,5 /př/	8,000	7.1	166	144
1000388	1-CE-R 1x10 /př/	100,000	5.2	107	90
1000389	1-CE-R 1x10 č	100,000	5.2	107	90
1000393	1-CE-R 1x25 /př/	6,000	8.0	257	227
1000394	1-CE-R 1x35 /př/	5,000	9.0	352	318
1000398	1-CE-R 1x95 /př/	5,000	13.9	935	864
1000390	1-CE-R 1x120 /př/	1,100	15.9	1,187	1,099
1000391	1-CE-R 1x185 /žž/	750	19.6	1,808	1,683
<b>1-C2E-R</b>					
1000001	1-C2E-R 1x0,5 /b/-/	75,000	2.2	10	5
1000002	1-C2E-R 1x0,5 /č/-/	75,000	2.2	10	5
1000003	1-C2E-R 1x0,5 /m/-/	75,000	2.2	10	5

**CONDUCTORS 0,6 - 1 kV****FIRE-RETARDANT****1-CE-R; 1-C2E-R; 1-C5E-R**

cables for fixed and free bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000004	1-C2E-R 1x0,5 /r/-/	75,000	2.2	10	5
1000005	1-C2E-R 1x0,5 /ž/-/	75,000	2.2	10	5
1000006	1-C2E-R 1x0,75 /b/-/	75,000	2.4	12	7
1000007	1-C2E-R 1x0,75 /č/-/	75,000	2.4	12	7
1000008	1-C2E-R 1x0,75 /m/-/	75,000	2.4	12	7
1000009	1-C2E-R 1x0,75 /r/-/	75,000	2.4	12	7
1000010	1-C2E-R 1x0,75 /ž/-/	75,000	2.4	12	7
1000011	1-C2E-R 1x1 /b/-/	75,000	2.6	16	10
1000012	1-C2E-R 1x1 /č/-/	75,000	2.6	16	10
1000013	1-C2E-R 1x1 /č/-/	75,000	2.6	16	10
1000014	1-C2E-R 1x1 /r/-/	75,000	2.6	16	10
1000015	1-C2E-R 1x1 /ž/-/	75,000	2.6	16	10
1000016	1-C2E-R 1x25 /m/-/	5,100	8.0	257	227
<b>1-C5E-R</b>					
1005122	1-C5E-R 1x0,5 /ž/-/	100,000	2.2	9	4
1005257	1-C5E-R 1x0,5 /ž/-/	100,000	2.2	9	4
1000065	1-C5E-R 1x0,75 /b/-/	50,000	2.3	14	7
1000066	1-C5E-R 1x0,75 /č/-/	50,000	2.3	14	7
1000067	1-C5E-R 1x0,75 /m/-/	50,000	2.3	14	7
1000069	1-C5E-R 1x1 /b/-/	70,000	2.5	15	9
1000070	1-C5E-R 1x1 /č/-/	70,000	2.5	15	9
1000068	1-C5E-R 1x1 /m/-/	70,000	2.5	15	9
1000071	1-C5E-R 1x1 /r/-/	70,000	2.5	15	9
1000072	1-C5E-R 1x1 /š/-/	70,000	2.5	15	9
1000075	1-C5E-R 1x1,5 /č/-/	50,000	2.9	21	13
1000076	1-C5E-R 1x1,5 /m/-/	50,000	2.9	21	13
1000077	1-C5E-R 1x1,5 /r/-/	50,000	2.9	21	13
1000078	1-C5E-R 1x1,5 /š/-/	50,000	2.9	21	13
1000079	1-C5E-R 1x1,5 /žž/-/	50,000	2.9	21	13
1000084	1-C5E-R 1x2,5 /č/-/	50,000	3.4	30	21
1000085	1-C5E-R 1x2,5 /m/-/	50,000	3.4	30	21
1000086	1-C5E-R 1x2,5 /r/-/	50,000	3.4	30	21
1000091	1-C5E-R 1x4 /č/-/	34,000		45	34
1005043	1-C5E-R 1x4 /žž/-/	34,000	3.9	45	34
1000093	1-C5E-R 1x6 /č/-/	10,000	4.5	65	52
1000094	1-C5E-R 1x6 /m/-/	10,000	4.5	65	52
1000081	1-C5E-R 1x10 /č/-/	15,000	5.6	106	88
1000080	1-C5E-R 1x10 /m/-/	15,000	5.6	106	88
1000082	1-C5E-R 1x16 /č/-/	4,000	7.2	162	138
1000083	1-C5E-R 1x16 /m/-/	4,000	7.2	162	138
1000087	1-C5E-R 1x25 /č/-/	10,000	8.8	249	215
1000088	1-C5E-R 1x25 /m/-/	10,000	8.8	249	215
1000090	1-C5E-R 1x35 /m/-/	4,000	9.5	343	306



# CONDUCTORS 0,6 - 1 kV

## FIRE-RETARDANT

1-CE-R; 1-C2E-R; 1-C5E-R

cables for fixed and free bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000092	1-C5E-R 1x50 /Č/-/	6,000	11.0	473	441
1000096	1-C5E-R 1x95 /Č/-/	2,300	16.4	920	833
1005101	1-C5E-R 1x150 Č	1,000	21.1	1,448	1,313

### dimension variants

Cores are offered as firm cores (wires) and cords of Class 2 and 5 from cross-sectionu 0,35 mm<sup>2</sup> up to 400 mm<sup>2</sup> inclusive with the fact that firm cores from the cross-sectionu of 16 mm<sup>2</sup> higher are replaced by cords of Class 2.

### conductor parameters

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
 - full copper conductors with the nominal cross-section of 25 mm<sup>2</sup> and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-CXKE-R

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with XLPE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,75 mm<sup>2</sup></b>					
1000743	1-CXKE-R 2x0,75 /o/-/	3,900	8.3	84	14
1000829	1-CXKE-R 5x0,75 /o/-/	3,900	11.1	153	34
<b>1 mm<sup>2</sup></b>					
1000719	1-CXKE-R 1x2x1 /o/-/	3,500	8.5	90	18
1000744	1-CXKE-R 2x1 /o/-/	3,500	8.4	90	18
1000733	1-CXKE-R 2Ax1 /o/-/	3,500	8.5	90	18
1000772	1-CXKE-R 3Cx1 /o/-/	3,500	9.0	106	27
1004927	1-CXKE-R (J) 3x1 /š/-/	3,500	9.0	106	27
1000808	1-CXKE-R 4Dx1 /o/-/	3,500	10.8	151	36
1004928	1-CXKE-R (J) 4x1 /š/-/	3,500	10.8	151	36

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CXKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000830	1-CXKE-R 5x1 /o/-/	3,600	11.5	172	45
1000843	1-CXKE-R 7x1 /o/-/	3,600	11.5	188	63
1000697	1-CXKE-R 12Bx1 /o/-/	3,600	14.2	290	108
1000705	1-CXKE-R 19Bx1 /o/-/	2,700	16.1	396	171
1004932	1-CXKE-R (J) 19x1 /š/-/	2,700	16.1	396	171
1000730	1-CXKE-R 24Bx1 /o/-/	1,800	19.5	550	216
1004933	1-CXKE-R (J) 24x1 /š/-/	1,800	19.5	550	216
<b>1,5 mm<sup>2</sup></b>					
1000709	1-CXKE-R 1x1,5 /o/-/	20,000	4.8	39	14
1000745	1-CXKE-R 2x1,5 /o/-/	2,400	9.9	125	27
1000734	1-CXKE-R 2Ax1,5 /o/-/	2,400	9.8	124	27
1000740	1-CXKE-R 2Bx1,5 /o/-/	2,400	9.8	124	27
1000780	1-CXKE-R 3x1,5 /o/-/	2,300	10.4	145	41
1000760	1-CXKE-R 3Ax1,5 /o/-/	2,400	10.4	146	41
1000761	1-CXKE-R 3Bx1,5 /o/-/	2,300	10.4	145	41
1000773	1-CXKE-R 3Cx1,5 /o/-/	2,300	10.4	145	41
1003985	1-CXKE-R (J) 3x1,5 /o/-/	2,300	10.4	145	41
1000791	1-CXKE-R 4Bx1,5 /o/-/	2,400	12.3	199	54
1000804	1-CXKE-R 4Cx1,5 /o/-/	2,400	12.3	199	54
1000818	1-CXKE-R 5Cx1,5 /o/-/	2,400	12.5	216	68
1004023	1-CXKE-R (O) 5x1,5 /o/-/	2,400	12.5	216	68
1000839	1-CXKE-R 7Cx1,5 /o/-/	2,400	12.8	244	95
1000842	1-CXKE-R 7Dx1,5 /o/-/	2,400	12.8	244	95
1000695	1-CXKE-R 10B x1,5 /o/-/	2,400	16.2	377	135
1000696	1-CXKE-R 10Cx1,5 /o/-/	2,400	16.2	377	135
1000838	1-CXKE-R 6x2x1,5 /o/-/	550	19.4	504	162
1000698	1-CXKE-R 12Cx1,5 /o/-/	2,400	16.2	394	162
1005286	1-CXKE-R (J) 12x1,5 /o/-/	2,400	16.2	394	162
1005394	1-CXKE-R (J) 12x2,5 /č/-/	1,800	18.1	547	270
1000703	1-CXKE-R 14x1,5 /o/-/	2,400	18.4	492	189
1000704	1-CXKE-R 16Cx1,5 /o/-/	1,900	19.0	541	216
1000706	1-CXKE-R 19Cx1,5 /o/-/	1,900	19.0	568	257
1000729	1-CXKE-R 21x1,5 /o/-/	1,200	22.2	722	284
1000756	1-CXKE-R 36x1,5 /o/-/	1,000	24.8	999	486
1000757	1-CXKE-R 37Cx1,5 /o/-/	1,000	24.8	1,008	500
1000758	1-CXKE-R 37x1,5 /o/-/	1,200	24.8	1,006	500
1000789	1-CXKE-R 48Cx1,5 /o/-/	650	30.2	1,413	648
<b>2,5 mm<sup>2</sup></b>					
1000749	1-CXKE-R 2x2,5 /o/-/	1,800	9.9	142	45
1000735	1-CXKE-R 2Ax2,5 /o/-/	1,800	10.7	158	45
1000741	1-CXKE-R 2Dx2,5 /o/-/	1,800	10.6	156	45
1000784	1-CXKE-R 3x2,5 /o/-/	1,800	11.5	193	68
1005453	1-CXKE-R 3Cx2,5 /č/-/	1,800	11.5	194	68

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CXKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000775	1-CXKE-R 3Cx2,5 /o/-/	1,800	11.5	194	68
1005403	1-CXKE-R (J) 3x2,5 /č/delší VD/	2,500	11.5	194	68
1004016	1-CXKE-R (J) 3x2,5 /o/-/	1,800	11.5	194	68
1000811	1-CXKE-R 4x2,5 /o/-/	1,800	12.2	230	90
1000794	1-CXKE-R 4Bx2,5 /o/-/	1,800	12.2	229	90
1004021	1-CXKE-R (O) 4x2,5 /o/-/	1,800	12.2	229	90
1000832	1-CXKE-R 5x2,5 /o/-/	1,800	13.1	272	113
1005454	1-CXKE-R 5Cx2,5 /č/-/	1,800	13.1	272	113
1005392	1-CXKE-R (J) 5x2,5 /č/-/	1,800	13.1	272	113
1000840	1-CXKE-R 7Cx2,5 /o/-/	1,800	14.0	329	158
1004018	1-CXKE-R (O) 7x2,5 /o/-/	1,800	14.0	329	158
1000699	1-CXKE-R 12Cx2,5 /o/-/	1,800	18.1	547	270
1000707	1-CXKE-R 19Cx2,5 /o/-/	1,550	20.9	787	428
1000732	1-CXKE-R 24Cx2,5 /o/-/	900	24.9	1,053	540
1000759	1-CXKE-R 37x2,5 /o/-/	800	27.6	1,431	833
1000790	1-CXKE-R 48Cx2,5 /o/-/	500	33.9	2,007	1,080
<b>4 mm²</b>					
1000723	1-CXKE-R 1x4 /o/-/	40,000	5.6	67	36
1000753	1-CXKE-R 2x4 /o/-/	1,400	11.8	203	72
1000742	1-CXKE-R 2Dx4 /o/-/	1,400	11.7	202	72
1000737	1-CXKE-R 2Ax4 /o/-/	1,400	11.8	204	72
1004014	1-CXKE-R (O) 2x4 /o/-/	1,400	11.8	204	72
1000776	1-CXKE-R 3Cx4 /o/-/	1,400	12.5	251	108
1000799	1-CXKE-R 4Bx4 /o/-/	1,400	13.3	304	144
1000805	1-CXKE-R 4Cx4 /o/-/	1,400	13.3	304	144
1004017	1-CXKE-R (J) 4x4 /o/-/	1,400	13.3	304	144
1004029	1-CXKE-R (O) 4x4 /o/-/	1,400	13.3	304	144
1000835	1-CXKE-R 5x4 /o/-/	1,400	14.3	363	180
1000826	1-CXKE-R 5Cx4 /o/-/	1,400	14.3	363	180
1005391	1-CXKE-R (J) 5x4 /č/-/	1,400	14.3	363	180
1004027	1-CXKE-R (J) 5x4 /o/-/	1,400	14.3	363	180
1000841	1-CXKE-R 7Cx4 /o/-/	1,400	15.3	448	252
<b>6 mm²</b>					
1000725	1-CXKE-R 1x6 /o/-/	11,000	6.2	90	54
1000726	1-CXKE-R 1x6 /o/zž/	11,000	6.2	88	54
1000739	1-CXKE-R 2Ax6 /o/-/	1,600	12.9	262	108
1000777	1-CXKE-R 3Cx6 /o/-/	1,700	13.6	325	162
1005390	1-CXKE-R (J) 3x6 /č/-/	1,700	13.6	325	162
1000802	1-CXKE-R 4Bx6 /o/-/	1,600	14.6	401	216
1004015	1-CXKE-R (O) 4x6 /o/-/	1,600	14.6	401	216
1004835	1-CXKE-R 5Cx6 /o/-/	1,000	15.8	499	270
1000828	1-CXKE-R 5Cx6 /o/-/	1,000	15.8	499	270



**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CXKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>10 mm<sup>2</sup></b>					
1000747	1-CXKE-R 2x10 /o/-/	1,050	14.8	374	180
1000774	1-CXKE-R 3Cx10 /o/-/	1,100	15.8	480	270
1004026	1-CXKE-R (J) 3x10 /o/-/	1,100	15.8	480	270
1000792	1-CXKE-R 4Bx10 /o/-/	1,000	16.9	595	360
1004025	1-CXKE-R (O) 4x10 /o/-/	1,000	16.9	595	360
1000819	1-CXKE-R 5Cx10 /o/-/	1,000	19.0	753	450
<b>16 mm<sup>2</sup></b>					
1000713	1-CXKE-R 1x16 /o/-/	13,000	8.1	193	144
1000748	1-CXKE-R 2x16 /o/-/	2,500	16.7	522	288
1004019	1-CXKE-R (O) 2x16 /o/-/	2,500	16.7	522	288
1000782	1-CXKE-R 3x16 /o/-/	2,000	18.1	692	432
1000793	1-CXKE-R 4Bx16 /o/-/	1,700	19.8	889	576
1004024	1-CXKE-R (O) 4x16 /o/-/	1,700	19.8	889	576
1000820	1-CXKE-R 5Cx16 /o/-/	1,400	21.6	1,082	720
1000844	1-CXKE-R 7x16 /o/-/	800	21.8	1,334	1,008
<b>25 mm<sup>2</sup></b>					
1000718	1-CXKE-R 1x25 /o/-/	4,000	10.4	301	227
1005100	1-CXKE-R 1x25 /o/zž/	4,000	10.4	301	227
1000750	1-CXKE-R 2x25 /o/-/	1,500	21.1	807	454
1000795	1-CXKE-R 4Bx25 /o/-/	900	25.1	1,321	906
1000822	1-CXKE-R 5Cx25 /o/-/	800	26.9	1,854	1,135
1004020	1-CXKE-R (J) 5x25 /o/-/	800	26.9	1,854	1,135
<b>35 mm<sup>2</sup></b>					
1000721	1-CXKE-R 1x35 /o/-/	4,000	11.4	402	318
1000722	1-CXKE-R 1x35 /o/zž/	4,000	11.4	402	318
1000752	1-CXKE-R 2x35 /o/-/	1,200	23.1	1,045	636
1000762	1-CXKE-R 3Bx35 /o/-/	1,000	25.1	1,404	954
1000798	1-CXKE-R 4Bx35 /o/-/	900	27.0	1,777	1,272
1000824	1-CXKE-R 5Cx35 /o/-/	600	31.3	2,368	1,540
1000825	1-CXKE-R 5Cx35 /o/-/	750	30.0	2,227	1,590
1005395	1-CXKE-R (J) 5x35 /č/-/	600	30.0	2,227	1,590
<b>50 mm<sup>2</sup></b>					
1005459	1-CXKE-R 1x50 /o/č/	1,400	12.8	537	438
1000724	1-CXKE-R 1x50 /o/č/	1,400	12.8	537	438
1005099	1-CXKE-R 1x50 /o/m/	1,400	12.8	537	438
1000754	1-CXKE-R 2x50 /o/-/	900	26.1	1,383	876
1000765	1-CXKE-R 3Bx50 /o/-/	750	28.2	1,860	1,314
1000766	1-CXKE-R 3Bx50+25 /o/-/	650	31.0	2,206	1,541
1000800	1-CXKE-R 4Bx50 /o/-/	550	37.0	2,772	1,752
1000827	1-CXKE-R 5Cx50 /o/-/	500	34.0	2,985	2,190
1004028	1-CXKE-R (J) 5x50 /o/-/	500	34.0	2,986	2,190
<b>70 mm<sup>2</sup></b>					
1000727	1-CXKE-R 1x70 /o/zž/	2,000	14.6	751	633

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-CXKE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000755	1-CXKE-R 2x70 /o/-/	700	30.1	1,927	1,266
1000803	1-CXKE-R 4Bx70 /o/-/	400	35.4	3,349	2,532
1005279	1-CXKE-R (J) 3x70+35 /o/-/	400	35.4	3,020	2,217
1000837	1-CXKE-R 5x70 /o/-/	400	39.7	4,255	3,165
<b>95 mm<sup>2</sup></b>					
1000728	1-CXKE-R 1x95 /o/-/	1,200	16.3	1,001	864
1005280	1-CXKE-R (J) 3x95+50 /o/-/	300	40.1	4,068	3,030
<b>120 mm<sup>2</sup></b>					
1000710	1-CXKE-R 1x120 /o/č/	1,500	18.7	1,277	1,099
1000711	1-CXKE-R 1x120 /o/zž/	1,500	18.7	1,277	1,099
<b>150 mm<sup>2</sup></b>					
1000712	1-CXKE-R 1x150 /o/-/	1,000	20.2	1,562	1,363
<b>185 mm<sup>2</sup></b>					
1000714	1-CXKE-R 1x185 /o/č/	600	19.6	1,910	1,683
1005097	1-CXKE-R 1x185 /o/m/	600	22.4	1,910	1,683
1005098	1-CXKE-R 1x185 /o/zž/	600	22.4	1,910	1,683
<b>240 mm<sup>2</sup></b>					
1000715	1-CXKE-R 1x240 /o/h/	900	25.0	2,429	2,168
1000716	1-CXKE-R 1x240 /o/č/	900	25.0	2,429	2,168
1000717	1-CXKE-R 1x240 /o/zž/	500	25.0	2,430	2,168

## conductor parameters

conductor diameter mm	conductor cross-section mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C					
		Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-CHKE-R

cables for fixed bedding

## use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1001283	1-CHKE-R 3x0,5 /o/-/	4,700	8.3	87	14
<b>1 mm<sup>2</sup></b>					
1001246	1-CHKE-R 2Ax1 /o/-/	3,600	8.5	94	18
1001253	1-CHKE-R 2Dx1 /o/-/	3,600	8.4	94	18
1001297	1-CHKE-R 4Bx1 /o/-/	3,600	10.8	158	36
1001331	1-CHKE-R 5x1 /o/-/	3,600	10.5	162	45
1001340	1-CHKE-R 7Cx1 /o/-/	3,600	11.2	195	63
1001214	1-CHKE-R 12x1 /o/-/	3,600	14.2	313	108
1001223	1-CHKE-R 19x1 /o/-/	3,200	15.1	403	171
1001242	1-CHKE-R 24x1 /o/-/	2,100	18.3	554	216

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CHKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001263	1-CHKE-R 37Cx1 /o/-/	1,500	21.3	778	333
<b>1,5 mm²</b>					
1001247	1-CHKE-R 2Ax1,5 /o/-/	2,400	9.9	130	27
1001254	1-CHKE-R 2Dx1,5 /o/-/	2,350	9.9	130	27
1001266	1-CHKE-R 3Ax1,5 /o/-/	2,400	10.4	153	41
1001269	1-CHKE-R 3Bx1,5 /o/-/	2,400	10.4	153	41
1001273	1-CHKE-R 3Cx1,5 /o/-/	2,400	10.4	153	41
1001282	1-CHKE-R 3Dx1,5 /o/-/	2,400	10.4	153	41
1001298	1-CHKE-R 4Bx1,5 /o/-/	2,400	12.3	207	54
1001308	1-CHKE-R 4Cx1,5 /o/-/	2,400	12.3	208	54
1001321	1-CHKE-R 5Cx1,5 /o/-/	2,400	12.5	228	68
1001330	1-CHKE-R 5Dx1,5 /o/-/	2,400	12.5	227	68
1001341	1-CHKE-R 7Cx1,5 /o/-/	2,300	12.8	262	95
1005521	1-CHKE-R 7Dx1,5 /č/-/	2,300	12.8	262	95
1005379	1-CHKE-R 7Dx1,5 /o/-/	2,300	12.8	261	95
1001349	1-CHKE-R 8Cx1,5 /o/-/	2,400	16.2	390	108
1001215	1-CHKE-R 12x1,5 /o/-/	2,400	16.2	425	162
1001209	1-CHKE-R 12Cx1,5 /o/-/	2,400	2.0	425	162
1001211	1-CHKE-R 12Dx1,5 /o/-/	2,400	16.2	425	162
1005191	1-CHKE-R (J) 12x1,5 /o/-/	2,400	2.0	425	162
1001219	1-CHKE-R 13Dx1,5 /o/-/	2,100	18.0	486	176
1001220	1-CHKE-R 19Cx1,5 /o/-/	1,900	19.0	612	257
1001222	1-CHKE-R 19Dx1,5 /o/-/	1,900	19.0	612	257
1001240	1-CHKE-R 24Cx1,5 /o/-/	1,300	22.3	810	324
1001264	1-CHKE-R 37Cx1,5 /o/-/	1,000	24.8	1,094	500
1001296	1-CHKE-R 48x1,5 /o/-/	700	30.1	1,519	648
<b>2,5 mm²</b>					
1001249	1-CHKE-R 2Ax2,5 /o/-/	1,800	10.7	164	45
1001255	1-CHKE-R 2Dx2,5 /o/-/	1,800	10.7	164	45
1001267	1-CHKE-R 3Ax2,5 /o/-/	1,800	11.5	202	68
1001276	1-CHKE-R 3Cx2,5 /o/-/	1,800	11.5	202	68
1003986	1-CHKE-R (J) 3x2,5 /o/-/	1,800	11.5	202	68
1005167	1-CHKE-R 4Ax2,5 /o/-/	1,800	13.3	270	90
1001302	1-CHKE-R 4Bx2,5 /o/-/	1,800	13.3	270	90
1004925	1-CHKE-R 4Dx2,5 /o/-/	1,800	13.3	270	90
1004883	1-CHKE-R 4Dx2,5 /o/-/	1,800	13.3	270	90
1001324	1-CHKE-R 5Cx2,5 /o/-/	1,800	13.1	289	113
1001342	1-CHKE-R 7Cx2,5 /o/-/	1,800	14.0	349	158
1001343	1-CHKE-R 7Dx2,5 /o/-/	1,800	13.9	347	158
1001216	1-CHKE-R 12x2,5 /o/-/	1,800	16.9	545	270
1001210	1-CHKE-R 12Cx2,5 /o/-/	1,500	16.9	545	270
1001212	1-CHKE-R 12Dx2,5 /o/-/	1,800	16.9	545	270
1001221	1-CHKE-R 19Cx2,5 /o/-/	1,500	21.0	844	428



**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CHKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001244	1-CHKE-R 24x2,5 /o/-/	1,100	23.8	1,075	540
1001241	1-CHKE-R 24Cx2,5 /o/-/	900	24.9	1,125	540
1001265	1-CHKE-R 37Cx2,5 /o/-/	800	27.6	1,530	833
	<b>4 mm<sup>2</sup></b>				
1001260	1-CHKE-R 2x4 /o/-/	1,400	11.7	209	72
1001250	1-CHKE-R 2Ax4 /o/-/	1,400	11.8	210	72
1001252	1-CHKE-R 2Bx4 /o/-/	1,400	11.8	210	72
1003942	1-CHKE-R 2Dx4 /č/-/	1,400	11.8	210	72
1003920	1-CHKE-R 2Dx4 /o/-/	1,400	11.7	209	72
1001278	1-CHKE-R 3Cx4 /o/-/	1,400	12.5	262	108
1001304	1-CHKE-R 4Bx4 /o/-/	2,200	13.3	317	144
1001328	1-CHKE-R 5Cx4 /o/-/	1,400	14.3	385	180
1001347	1-CHKE-R 7x4 /o/-/	1,400	15.3	473	252
	<b>6 mm<sup>2</sup></b>				
1001237	1-CHKE-R 1x6 /o/-/	25,000	6.2	93	54
1001251	1-CHKE-R 2Ax6 /o/-/	1,600	12.9	269	108
1003658	1-CHKE-R 2Dx6 /o/-/	1,600	12.9	270	108
1001280	1-CHKE-R 3Cx6 /o/-/	1,700	13.6	337	162
1001318	1-CHKE-R 4x6 /o/-/	1,650	14.6	417	216
1001307	1-CHKE-R 4Bx6 /o/-/	1,650	14.6	417	216
1003206	1-CHKE-R 4Dx6 /o/-/	1,650	14.6	419	216
1001329	1-CHKE-R 5Cx6 /o/-/	1,000	15.8	507	270
1001348	1-CHKE-R 7x6 /o/-/	1,700	16.0	606	378
	<b>10 mm<sup>2</sup></b>				
1001226	1-CHKE-R 1x10 /o/-/	15,000	7.2	138	90
1001257	1-CHKE-R 2x10 /o/-/	1,050	14.7	383	180
1001248	1-CHKE-R 2Ax10 /o/-/	1,050	14.7	383	180
1003946	1-CHKE-R 2Dx10 /o/-/	1,050	14.7	383	180
1003921	1-CHKE-R 2Dx10 /o/-/	1,050	14.7	383	180
1001274	1-CHKE-R 3Cx10 /o/-/	1,000	15.8	495	270
1001299	1-CHKE-R 4Bx10 /o/-/	1,100	16.9	621	360
1001322	1-CHKE-R 5Cx10 /o/-/	1,000	19.0	786	450
1001345	1-CHKE-R 7x10 /o/-/	1,150	18.8	928	630
	<b>16 mm<sup>2</sup></b>				
1004887	1-CHKE-R 1x16 /o/č/	9,000	8.1	200	144
1004916	1-CHKE-R 1x16 /o/č/	9,000	8.1	200	144
1001229	1-CHKE-R 1x16 /o/zž/	9,000	8.1	200	144
1001258	1-CHKE-R 2x16 /o/-/	2,000	16.7	536	288
1001275	1-CHKE-R 3Cx16 /o/-/	1,800	18.1	713	432
1001301	1-CHKE-R 4Bx16 /o/-/	800	19.7	915	576
1001300	1-CHKE-R 4Bx16 /o/-/	1,500	19.7	915	576
1001323	1-CHKE-R 5Cx16 /o/-/	1,400	21.6	1,132	720
1001346	1-CHKE-R 7x16 /o/-/	800	21.8	1,378	1,008

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CHKE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>25 mm<sup>2</sup></b>					
1001233	1-CHKE-R 1x25 /o/č/	3,600	10.4	313	227
1001259	1-CHKE-R 2x25 /o/-/	1,400	21.1	827	454
1001268	1-CHKE-R 3Ax25 /o/-/	1,100	23.1	1,136	680
1001277	1-CHKE-R 3Cx25 /o/-/	1,100	23.1	1,132	680
1001303	1-CHKE-R 4Bx25 /o/-/	1,000	24.6	1,396	908
1001325	1-CHKE-R 5Cx25 /o/-/	800	26.9	1,730	1,135
<b>35 mm<sup>2</sup></b>					
1001234	1-CHKE-R 1x35 /o/č/	2,900	11.4	414	318
1001315	1-CHKE-R 4x35 /o/-/	800	26.6	1,827	1,272
1003127	1-CHKE-R 4Bx35 /o/-/	800	26.6	1,826	1,272
1001327	1-CHKE-R 5Cx35 /o/-/	600	30.0	2,302	1,590
<b>50 mm<sup>2</sup></b>					
1001236	1-CHKE-R 1x50 /o/č/	2,100	12.8	553	438
1001279	1-CHKE-R 3Cx50 /o/-/	700	28.2	1,929	1,314
1001306	1-CHKE-R 4Bx50 /o/-/	600	31.0	2,483	1,752
1001337	1-CHKE-R 5x50 /o/-/	500	34.0	3,090	2,190
<b>70 mm<sup>2</sup></b>					
1001238	1-CHKE-R 1x70 /o/č/	1,500	14.6	773	633
1001262	1-CHKE-R 2x70 /o/-/	700	30.1	1,970	1,266
1001293	1-CHKE-R 3x70 /o/-/	550	32.7	2,678	1,899
1001319	1-CHKE-R 4x70 /o/-/	400	35.4	3,438	2,532
1001339	1-CHKE-R 5x70 /o/-/	300	39.5	4,338	3,165
<b>95 mm<sup>2</sup></b>					
1001239	1-CHKE-R 1x95 /o/č/	1,100	16.3	1,025	864
1001281	1-CHKE-R 3Cx95 /o/-/	400	36.7	3,583	2,592
<b>120 mm<sup>2</sup></b>					
1001227	1-CHKE-R 1x120 /o/zž/	1,000	18.3	1,288	1,099
<b>150 mm<sup>2</sup></b>					
1001228	1-CHKE-R 1x150 /o/č/	700	20.2	1,600	1,363
<b>185 mm<sup>2</sup></b>					
1001230	1-CHKE-R 1x185 /o/č/	500	22.4	1,954	1,683
<b>240 mm<sup>2</sup></b>					
1001231	1-CHKE-R 1x240 /o/č/	550	25.0	2,486	2,168
1001232	1-CHKE-R 1x240 /o/zž/	550	25.0	2,486	2,168

**dimension variants**

core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1

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# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

## 1-CXFE-R: 1-CHFE-R

cables for fixed bedding

## use

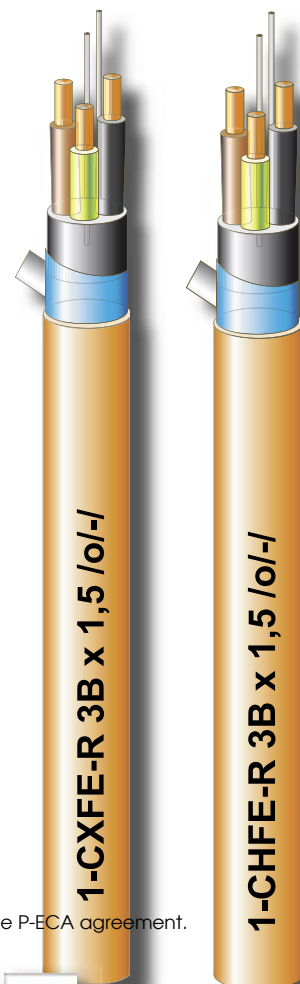
For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- cables are equipped with Al electrostatic shielding and collector conductor
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum pro- duction length	cable diameter	cable weight kg/km	Cu weight in cable
0,75 mm²					
1000490	1-CXFE-R 4x0,75 /o/-/	3,900	11.0	144	30
1 mm²					
1005333	1-CXFE-R 2x1 /o/m,h cores/	3,600	8.9	95	20
1000436	1-CXFE-R 2Ax1 /o/-/	3,600	9.0	96	21
1000468	1-CXFE-R 3x1 /o/-/	3,600	9.8	120	29
1005334	1-CXFE-R 3x1 /o/Č,š,h cores/	3,600	9.8	120	29
1005335	1-CXFE-R 4x1 /o/m,h,č,š cores/	3,600	11.2	155	38
1000482	1-CXFE-R 4Cx1 /o/-/	3,600	11.3	156	39
1000483	1-CXFE-R 4Dx1 /o/-/	3,600	11.3	156	39
1004010	1-CXFE-R (J) 4x1 /o/-/	3,600	11.3	156	39

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CXFE-R; 1-CHFE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000509	1-CXFE-R 5x1 /o/-/	3,600	12.0	179	48
1000506	1-CXFE-R 5Dx1 /o/-/	3,600	12.0	179	48
1005376	1-CXFE-R 7x1 /o/1x m + 6x h čís/	3,600	11.7	189	65
1000516	1-CXFE-R 7Dx1 /o/-/	3,500	12.0	193	66
1004011	1-CXFE-R (J) 7x1 /o/-/	3,600	11.7	189	65
1004045	1-CXFE-R (O) 10x1 /o/-/	3,400	14.6	280	92
1000407	1-CXFE-R 11Dx1 /o/-/	3,400	14.7	285	102
1005331	1-CXFE-R 12x1 /o/1xm,11xh numbered/	2,300	14.6	296	110
1000408	1-CXFE-R 12Dx1 /o/-/	3,400	14.6	296	110
1005575	1-CXFE-R (O) 12x1 /o/-/	3,400	14.6	296	110
1004002	1-CXFE-R (J) 12x1 /o/-/	3,400	14.6	296	110
1003956	1-CXFE-R 14Dx1 /o/-/	2,700	16.1	350	129
1005332	1-CXFE-R 19x1 /o/1xm,18xh numbered/	2,400	16.6	406	174
1000419	1-CXFE-R 19Cx1 /o/-/	2,500	16.6	406	174
1004006	1-CXFE-R (J) 19x1 /o/-/	2,500	16.6	406	174
1000429	1-CXFE-R 20Dx1 /o/-/	1,700	20.0	519	183
1000432	1-CXFE-R 24Cx1 /o/-/	1,700	20.0	563	219
1000433	1-CXFE-R 24Dx1 /o/-/	1,700	20.0	563	219
1000435	1-CXFE-R 27x1 /o/-/	1,500	20.8	613	246
1000456	1-CXFE-R 30Cx1 /o/-/	1,400	21.3	656	272
1000460	1-CXFE-R 37Cx1 /o/-/	1,400	21.8	727	336
1000461	1-CXFE-R 37Dx1 /o/-/	1,400	21.8	727	336
<b>1,5 mm<sup>2</sup></b>					
1000447	1-CXFE-R 2x1,5 /č/cores numbered/	2,400	10.4	131	30
1004821	1-CXFE-R 2x1,5 /š/-/	2,400	10.4	131	30
1005387	1-CXFE-R 2x1,5 /ZE/š/čb cores/	2,400	11.6	186	34
1000437	1-CXFE-R 2Ax1,5 /o/-/	2,400	10.4	132	30
1000463	1-CXFE-R 3Ax1,5 /o/-/	2,400	10.9	152	43
1000465	1-CXFE-R 3Cx1,5 /o/-/	2,400	10.9	152	43
1000479	1-CXFE-R 4Bx1,5 /o/-/	2,300	12.8	206	57
1000484	1-CXFE-R 4Dx1,5 /o/-/	2,300	12.8	206	57
1005288	1-CXFE-R (O) 4x1,5 /o/-/	2,300	12.8	206	57
1000502	1-CXFE-R 5Cx1,5 /o/-/	2,400	13.0	223	70
1000508	1-CXFE-R 5Dx1,5 /o/-/	2,400	2.8	399	209
1000515	1-CXFE-R 7Cx1,5 /o/-/	2,300	13.2	250	97
1000518	1-CXFE-R 7Dx1,5 /o/-/	2,400	13.3	252	97
1000404	1-CXFE-R 10x1,5 /o/-/	2,300	16.7	394	138
1005970	1-CXFE-R 12x1,5 /č/-/	2,400	16.6	367	164
1000412	1-CXFE-R 12x1,5 /č/cores numbered/	2,400	16.6	367	164
1000410	1-CXFE-R 12Dx1,5 /o/-/	1,800	16.7	402	165
1000421	1-CXFE-R 19x1,5 /o/-/	1,500	19.4	574	259
1000420	1-CXFE-R 19Dx1,5 /o/-/	1,525	19.5	577	259
1005971	1-CXFE-R 24x1,5 /č/-/	1,200	22.8	760	327



**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-CXFE-R; 1-CHFE-R**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000434	1-CXFE-R 24x1,5 /č/cores numbered/	1,200	22.8	760	327
1000457	1-CXFE-R 30Dx1,5 /o/-/	1,000	24.5	904	408
1000459	1-CXFE-R 34x1,5 /o/-/	1,000	25.3	991	462
1000462	1-CXFE-R 37Dx1,5 /o/-/	1,000	25.3	1,018	502
<b>2,5 mm<sup>2</sup></b>					
1000439	1-CXFE-R 2Ax2,5 /o/-/	1,800	11.2	162	48
1000444	1-CXFE-R 2Dx2,5 /o/-/	1,800	11.2	162	48
1000467	1-CXFE-R 3Cx2,5 /o/-/	1,800	12.0	200	70
1000480	1-CXFE-R 4Bx2,5 /o/-/	1,800	12.7	237	93
1000487	1-CXFE-R 4Dx2,5 /o/-/	1,800	12.7	237	93
1000504	1-CXFE-R 5Cx2,5 /o/-/	1,800	13.6	282	115
1003957	1-CXFE-R 7Cx2,5 /o/-/	1,800	14.4	334	160
1000519	1-CXFE-R 7Dx2,5 /o/-/	1,800	14.4	335	160
1000405	1-CXFE-R 10x2,5 /o/-/	1,800	19.0	553	228
1000413	1-CXFE-R 12x2,5 /o/-/	1,800	19.0	573	273
1000411	1-CXFE-R 12Dx2,5 /o/-/	1,800	19.0	575	273
1000422	1-CXFE-R 19x2,5 /o/-/	1,400	21.4	796	430
1004008	1-CXFE-R (J) 19x2,5 /o/-/	1,400	21.4	796	430
1000431	1-CXFE-R 20x2,5 /o/-/	900	25.5	998	453
<b>4 mm<sup>2</sup></b>					
1000441	1-CXFE-R 2Ax4 /o/-/	1,400	12.3	212	75
1000488	1-CXFE-R 4Dx4 /o/-/	1,400	13.8	310	147
1000505	1-CXFE-R 5Cx4 /o/-/	1,400	14.8	372	183
<b>6 mm<sup>2</sup></b>					
1000445	1-CXFE-R 2Dx6 /o/-/	1,600	13.4	270	111
1000477	1-CXFE-R 3x6 /o/-/	1,600	14.2	335	165
1000481	1-CXFE-R 4Bx6 /o/-/	1,700	15.1	410	218
1000489	1-CXFE-R 4Dx6 /o/-/	1,700	15.1	410	218
1000512	1-CXFE-R 5x6 /o/-/	1,700	15.8	477	273
1000521	1-CXFE-R 7x6 /o/-/	1,600	17.4	611	381
<b>10 mm<sup>2</sup></b>					
1000449	1-CXFE-R 2x10 /o/-/	1,000	15.3	382	183
1000442	1-CXFE-R 2Dx10 /o/-/	1,000	15.3	382	183
1000470	1-CXFE-R 3x10 /o/-/	1,000	16.3	487	273
1000492	1-CXFE-R 4x10 /o/-/	1,050	17.4	603	363
1000485	1-CXFE-R 4Dx10 /o/-/	1,050	17.4	603	363
1000511	1-CXFE-R 5x10 /o/-/	700	19.5	760	453
<b>16 mm<sup>2</sup></b>					
1000443	1-CXFE-R 2Dx16 /o/-/	2,200	17.2	532	291
1004860	1-CXFE-R 4Bx16 /č/-/	1,600	20.3	902	579
1004067	1-CXFE-R 4Bx16 /o/-/	1,600	20.3	902	579
1000486	1-CXFE-R 4Dx16 /o/-/	1,600	20.3	902	579

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-CXFE-R; 1-CHFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>nad 16 mm<sup>2</sup></b>					
1000495	1-CXFE-R 4x25 /o/-/	900	25.1	1,354	910
1000498	1-CXFE-R 4x35 /o/-/	800	27.5	1,781	1,274
1000501	1-CXFE-R 4x50 /o/-/	500	31.5	2,415	1,754
1000428	1-CXFE-R 1x95 /o/č/	1,600	16.8	1,007	867
1005458	1-CXFE-R (J) 3x95+50 /o/-/	250	40.6	3,999	3,033
1000424	1-CXFE-R 1x185 /o/-/	800	22.9	1,918	1,686
<b>1-CHFE-R</b>					
1001163	1-CHFE-R 4x1 /o/-/	3,600	11.3	164	39
1004998	1-CHFE-R 37Dx1 /o/-/	1,300	21.8	792	336
1001156	1-CHFE-R 2x1,5 /o/-/	2,400	10.4	136	29
1001157	1-CHFE-R 3Cx1,5 /o/-/	2,400	10.9	159	43
1005152	1-CHFE-R 4Bx1,5 /o/-/	2,200	12.8	215	57
1001168	1-CHFE-R 7Cx1,5 /o/-/	2,400	13.3	268	97
1001158	1-CHFE-R 3Cx2,5 /o/-/	1,800	12.0	208	70
1004892	1-CHFE-R 4Bx2,5 /o/-/	1,800	12.7	215	93
1001159	1-CHFE-R 3Cx4 /o/-/	1,400	13.0	268	111
1001162	1-CHFE-R 4Bx6 /o/-/	1,700	15.1	421	218
1001160	1-CHFE-R 4Bx10 /o/-/	1,100	17.4	624	362
1001166	1-CHFE-R 4x16 /o/-/	1,600	20.3	928	578
1001161	1-CHFE-R 4Bx25 /o/-/	950	25.1	1,412	911

## derived variants

1003880	1-CXFE-R 2x1,5 /ZE/š/-/	2,400	11.6	186	34
1005972	1-CXFE-R 2x2,5 /ZE/č/-/	1,800	12.4	222	52
1004827	1-CXFE-R 4x2,5 /ZE/š/-/	1,800	13.9	301	97
1004009	1-CXFE-R (O) 4x2,5 /ZE/o/-/	1,800	13.9	301	97
1003881	1-CXFE-R 12x2,5 /ZE/š/-/	1,700	20.2	671	277
1003882	1-CXFE-R 24x2,5 /ZE/š/-/	800	26.7	1,194	547
1004012	1-CXFE-R (O) 2x4 /ZE/o/-/	1,400	13.5	274	79
1004007	1-CXFE-R (O) 4x4 /ZE/o/-/	1,400	15.0	384	151
1004004	1-CXFE-R (O) 4x6 /ZE/o/-/	1,600	16.3	486	223
1004013	1-CXFE-R (O) 4x10 /ZE/o/-/	1,000	19.0	710	367
1004003	1-CXFE-R (O) 2x16 /ZE/o/-/	1,900	18.4	649	295
1004005	1-CXFE-R (O) 4x16 /ZE/o/-/	1,400	21.5	1,000	583

## dimension variants

core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-C5XKE-R; 1-C5HKE-R

cables for free bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1000285	1-C5XKE-R 5Cx0,5 /o/-/	3,900	11.1	141	22
<b>0,75 mm<sup>2</sup></b>					
1000256	1-C5XKE-R 2x0,75 /o/-/	3,600	8.5	85	13
1000272	1-C5XKE-R 3x0,75 /o/-/	3,600	9.0	99	20
1000279	1-C5XKE-R 4x0,75 /o/-/	3,600	10.7	138	27
1000286	1-C5XKE-R 5Cx0,75 /o/-/	3,600	11.5	161	33
1000289	1-C5XKE-R 5Dx0,75 /o/-/	3,600	11.5	161	33
1000221	1-C5XKE-R 12x0,75 /o/-/	3,600	14.2	263	80
<b>1 mm<sup>2</sup></b>					
1000253	1-C5XKE-R 2Ax1 /o/-/	3,000	8.9	95	17

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-C5XKE-R; 1-C5HKE-R

cables for free bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000266	1-C5XKE-R 3Cx1 /o/-/	3,000	9.8	119	26
1000271	1-C5XKE-R 3Dx1 /o/-/	3,000	9.8	119	26
1000280	1-C5XKE-R 4x1 /o/-/	3,000	11.5	163	35
1000278	1-C5XKE-R 4Cx1 /o/-/	3,000	11.5	163	35
1000287	1-C5XKE-R 5Cx1 /o/-/	3,000	11.9	178	43
1000219	1-C5XKE-R 12Cx1 /o/-/	3,000	15.0	302	104
1000224	1-C5XKE-R 18x1 /o/-/	2,400	17.0	404	156
1000251	1-C5XKE-R 20x1 /o/-/	1,600	20.6	526	173
<b>1,5 mm<sup>2</sup></b>					
1005096	1-C5XKE-R 1x1,5 /m/-/	40,000	4.9	38	13
1005095	1-C5XKE-R 1x1,5 /r/-/	40,000	4.9	38	13
1000254	1-C5XKE-R 2Ax1,5 /o/-/	2,200	10.1	124	25
1000261	1-C5XKE-R 3Ax1,5 /o/-/	2,200	10.7	149	38
1000262	1-C5XKE-R 3Bx1,5 /o/-/	2,200	10.7	149	38
1000267	1-C5XKE-R 3Cx1,5 /o/-/	2,200	10.7	148	38
1000276	1-C5XKE-R 4Bx1,5 /o/-/	2,200	12.6	201	50
1000292	1-C5XKE-R 5x1,5 /o/-/	2,200	12.7	214	63
1005414	1-C5XKE-R 5Cx1,5 /o/-/	2,200	12.7	214	63
1000299	1-C5XKE-R 7Cx1,5 /o/-/	2,200	13.2	246	88
1000220	1-C5XKE-R 12Cx1,5 /o/-/	2,200	16.7	394	151
1000223	1-C5XKE-R 16x1,5 /o/-/	1,800	19.6	541	202
1000226	1-C5XKE-R 19x1,5 /o/-/	1,800	19.6	566	239
1000252	1-C5XKE-R 25x1,5 /o/-/	1,200	23.1	775	315
<b>2,5 mm<sup>2</sup></b>					
1000234	1-C5XKE-R 1x2,5 /o/č/	20,000	5.4	50	21
1000235	1-C5XKE-R 1x2,5 /o/m/	20,000	5.4	50	21
1000255	1-C5XKE-R 2Ax2,5 /o/-/	1,600	11.1	160	41
1000268	1-C5XKE-R 3Cx2,5 /o/-/	1,600	12.0	196	62
1000277	1-C5XKE-R 4Bx2,5 /o/-/	1,000	12.7	231	83
1004030	1-C5XKE-R (J) 4x2,5 /o/-/	1,000	12.7	231	83
1000296	1-C5XKE-R 5x2,5 /o/-/	1,600	13.7	274	104
<b>4 mm<sup>2</sup></b>					
1000243	1-C5XKE-R 1x4 /o/zž/	25,000	5.9	66	34
1000283	1-C5XKE-R 4x4 /o/-/	1,200	13.9	307	136
1003225	1-C5XKE-R 5Cx4 /o/-/	1,200	15.0	365	170
<b>6 mm<sup>2</sup></b>					
1000245	1-C5XKE-R 1x6 /o/-/	25,000	6.5	89	52
1000246	1-C5XKE-R 1x6 /o/zž/	25,000	6.5	89	52
1000260	1-C5XKE-R 2x6 /o/-/	1,400	13.5	267	104
1000298	1-C5XKE-R 5x6 /o/-/	1,400	16.7	495	260
1000288	1-C5XKE-R 5Cx6 /o/-/	1,400	16.7	495	260



**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-C5XKE-R; 1-C5HKE-R**

cables for free bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>10 mm<sup>2</sup></b>					
1000227	1-C5XKE-R 1x10 /o/č/	9,000	7.6	134	88
1000228	1-C5XKE-R 1x10 /o/zž/	9,000	7.6	134	88
1000295	1-C5XKE-R 5x10 /o/-/	900	20.2	775	441
<b>16 mm<sup>2</sup></b>					
1000232	1-C5XKE-R 1x16 /b/zž/	9,000	9.6	201	138
1000231	1-C5XKE-R 1x16 /o/č/	9,000	9.6	203	138
1003608	1-C5XKE-R 1x16 /o/zž/	9,000	9.6	203	138
1005410	1-C5XKE-R 5Cx16 /o/-/	550	24.7	1,148	688
<b>25 mm<sup>2</sup></b>					
1000238	1-C5XKE-R 1x25 /o/č/	6,500	11.2	296	215
1000239	1-C5XKE-R 1x25 /o/zž/	6,500	11.2	296	215
1000282	1-C5XKE-R 4x25 /o/-/	850	26.5	1,446	862
1000297	1-C5XKE-R 5x25 /o/-/	700	29.5	1,859	1,077
<b>35 mm<sup>2</sup></b>					
1000241	1-C5XKE-R 1x35 /o/č/	5,500	11.5	382	306
1000263	1-C5XKE-R 3Bx35+25 /o/-/	500	34.1	2,003	1,133
<b>50 mm<sup>2</sup></b>					
1000244	1-C5XKE-R 1x50 /o/zž/	4,000	13.4	545	441
1000284	1-C5XKE-R 4x50 /o/-/	550	32.5	2,713	1,766
1000264	1-C5XKE-R 3Bx50+35 /o/-/	500	32.5	2,326	1,630
<b>70 mm<sup>2</sup></b>					
1000247	1-C5XKE-R 1x70 /o/č/	2,300	17.2	766	627
1000248	1-C5XKE-R 1x70 /o/zž/	2,300	17.2	767	627
1000265	1-C5XKE-R 3Bx70+50 /o/-/	350	42.4	3,417	2,322
<b>95 mm<sup>2</sup></b>					
1000249	1-C5XKE-R 1x95 /o/č/	1,900	18.8	992	833
1005384	1-C5XKE-R 1x95 /o/zž/	1,900	18.8	992	833
<b>120 mm<sup>2</sup></b>					
1005407	1-C5XKE-R 1x120 /o/č/	1,800	19.7	1,236	1,050
1000229	1-C5XKE-R 1x120 /o/zž/	1,800	19.7	1,236	1,050
<b>nad 120 mm<sup>2</sup></b>					
1000230	1-C5XKE-R 1x150 /o/-/	1,100	23.9	1,552	1,313
1000233	1-C5XKE-R 1x185 /o/č/	900	25.5	1,886	1,624
1000236	1-C5XKE-R 1x240 /o/č/	700	29.0	2,473	2,139
<b>1-C5HKE-R</b>					
1003990	1-C5HKE-R (J) 5x1,5 /o/-/	2,200	12.7	228	63
1004812	1-C5HKE-R (O) 2x1,5 /o/-/	2,200	10.1	131	25
1003988	1-C5HKE-R 2x1,5 /o/-/	2,200	10.1	131	25
1004810	1-C5HKE-R(O) 2x1,5	700	28.0	1,339	648

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-C5XFE-R; 1-C5HFE-R

cables for free bedding

#### use

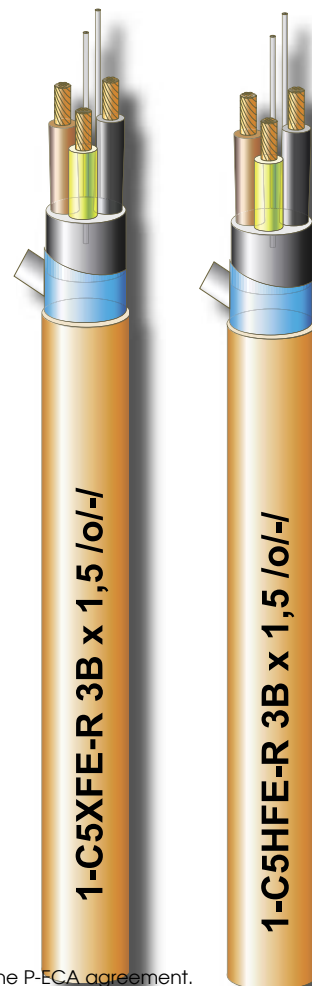
For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- cables are equipped with Al electrostatic shielding and collector conductor
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000144	1-C5XFE-R 12x0,5 /š/-/	3,700	14.2	233	54
1000147	1-C5XFE-R 19x0,5 /š/-/	2,700	16.0	302	84
1000150	1-C5XFE-R 3x1 /o/-/	3,000	10.3	127	29
1000151	1-C5XFE-R 5x1 /o/-/	3,000	12.4	185	46
1005327	1-C5XFE-R 12x1 /o/-/	3,000	15.5	310	106
1000153	1-C5XFE-R 7x1,5 /o/-/	2,200	13.7	253	91

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT****1-C5XFE-R; 1-C5HFE-R**

cables for free bedding

**dimension variants**

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor diameter mm		conductor cross-section mm <sup>2</sup>		for Cu conductors		for CuSn conductors	
				maximum conductor resistance at 20°C Ohm/km			
				třída 1	třída 2	třída 5	třída 1
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
- full copper conductors with the nominal cross-section of 25 mm<sup>2</sup> and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT

### 1-CHKFH-R

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Shielded cables are designed for the connection in systems where resistance to interference (EMC) is required, in circuits of impulse supply with frequency converter and everywhere the resistance to transmission or effusion of interfering signals is required. At all bedding circumstances the concentric shielding conductor may be used as a protective - central or null - conductor. At the same time, it can serve as protective earthing and shielding.

Cables can be used in environment with the threat of fire and can be installed on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### dimension variants

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable

1003866

1-CHKFH-O 4x6 /o/ TD00133/

1 600

15,2

488

285

# CONDUCTORS 0,6 - 1 kV

**FIRE-RETARDANT AND FIRE-PROOF****1-CE-V; 1-C2E-V; 1-C5E-V**

cables for fixed and free bedding

## use

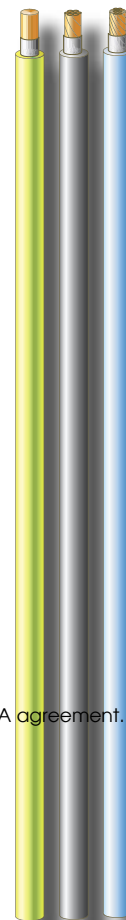
For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- conductors with PE conductor insulation
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x conductor diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer

Conductor colour identification according to order.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003181	1-CE-V 1x0,75 /č/	65,000	2.6	14	7
1000399	1-CE-V 1x6 /č/	5,000	4.6	69	54
1004935	1-CE-V 1x10 /zž/	12,600	5.6	112	90
1004833	1-CE-V 1x16 /zž/	800	6.5	169	144
1003817	1-C5E-V 1x10 /zž/-/	12,600	6.0	111	88

## dimension variants

Cores are offered as firm cores (wires) and cords of Class 2 and 5 from cross-sectionu 0,35 mm<sup>2</sup> up to 400 mm<sup>2</sup> inclusive with the fact that firm cores from the cross-sectionu of 16 mm<sup>2</sup> higher are replaced by cords of Class 2.



# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CXKE-V

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with XLPE conductor insulation and HFFR jacket.
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>1 mm<sup>2</sup></b>					
1000897	1-CXKE-V 2x1 /o/-/	2,600	9.7	115	18
1000950	1-CXKE-V 4x1 /o/-/	2,600	12.1	179	36
1004898	1-CXKE-V 4Dx1 /r/-/ KERAMEX ®	2,600	10.0	110	36
1000972	1-CXKE-V 7x1 /o/-/	2,600	12.7	215	63
1000975	1-CXKE-V 8Cx1 /o/-/	2,600	15.9	314	72
1000977	1-CXKE-V 9Cx1 /o/-/	2,600	15.9	321	81
1000865	1-CXKE-V 12Dx1 /o/-/	2,500	15.9	340	108
<b>1,5 mm<sup>2</sup></b>					
1000894	1-CXKE-V 2Ax1,5 /o/-/	1,800	10.7	143	27
1000908	1-CXKE-V 3Ax1,5 /o/-/	1,800	11.5	170	41

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-CXKE-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000925	1-CXKE-V 3Cx1,5 /o/-/	1,800	11.5	170	41
1003787	1-CXKE-V 4x1,5 /o/-/	1,800	13.4	229	54
1000940	1-CXKE-V 4Bx1,5 /o/-/	1,800	13.4	229	54
1003134	1-CXKE-V 5x1,5 /o/-/	1,800	13.3	234	68
1000956	1-CXKE-V 5Cx1,5 /o/-/	1,800	13.3	234	68
1000970	1-CXKE-V 7Cx1,5 /o/-/	1,800	14.0	273	95
1000862	1-CXKE-V 10x1,5 /o/-/	1,800	18.5	455	135
1000864	1-CXKE-V 12Cx1,5 /o/-/	1,800	18.5	483	162
1000866	1-CXKE-V 12Dx1,5 /o/-/	1,800	18.5	483	162
1000871	1-CXKE-V 19x1,5 /o/-/	1,500	20.9	635	257
1000890	1-CXKE-V 21x1,5 /o/-/	1,000	24.9	836	284
1000891	1-CXKE-V 24x1,5 /o/-/	1,000	26.2	877	324
1000904	1-CXKE-V 30x1,5 /o/-/	800	26.9	1,025	405
1000906	1-CXKE-V 37x1,5 /o/-/	800	27.6	1,142	500
1000938	1-CXKE-V 48Dx1,5 /o/-/	550	33.9	1,624	648
<b>2,5 mm<sup>2</sup></b>					
1000878	1-CXKE-V 1x2,5 /o/zž/	35,000	5.6	54	23
1000895	1-CXKE-V 2Ax2,5 /o/-/	1,500	11.6	179	45
1000913	1-CXKE-V 3Bx2,5 /o/-/	1,400	12.4	217	68
1000929	1-CXKE-V 3Cx2,5 /o/-/	1,400	12.4	217	68
1000959	1-CXKE-V 5Cx2,5 /o/-/	1,400	14.2	302	113
1000971	1-CXKE-V 7Cx2,5 /o/-/	1,400	15.2	361	158
1000976	1-CXKE-V 8Cx2,5 /o/-/	1,400	20.1	558	180
1000863	1-CXKE-V 10x2,5 /o/-/	1,350	20.1	590	225
1000868	1-CXKE-V 12x2,5 /o/-/	1,400	20.0	618	270
1000870	1-CXKE-V 14x2,5 /o/-/	1,300	22.3	748	315
1000872	1-CXKE-V 19x2,5 /o/-/	1,200	22.9	864	428
1000892	1-CXKE-V 24x2,5 /o/-/	800	27.5	1,176	540
1000893	1-CXKE-V 27x2,5 /o/-/	750	28.7	1,304	608
1000905	1-CXKE-V 30x2,5 /o/-/	700	28.3	1,329	675
1000907	1-CXKE-V 37x2,5 /o/-/	600	31.0	1,618	833
<b>4 mm<sup>2</sup></b>					
1000902	1-CXKE-V 2x4 /o/-/	1,100	12.6	226	72
1000930	1-CXKE-V 3Cx4 /o/-/	1,100	13.3	275	108
1000953	1-CXKE-V 4x4 /o/-/	1,100	14.3	330	144
1000968	1-CXKE-V 5x4 /o/-/	1,100	15.4	395	180
1000869	1-CXKE-V 12x4 /o/-/	1,100	22.1	843	432
<b>6 mm<sup>2</sup></b>					
1000887	1-CXKE-V 1x6 /o/zž/	20,000	6.6	93	54
1000933	1-CXKE-V 3Cx6 /o/-/	1,400	16.9	363	162
1000954	1-CXKE-V 4x6 /o/-/	1,400	15.6	436	216
1000969	1-CXKE-V 5x6 /o/-/	900	16.8	518	270
1000964	1-CXKE-V 5Cx6 /o/-/	900	16.9	522	270

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CXKE-V

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>10 mm<sup>2</sup></b>					
1000911	1-CXKE-V 3Bx10 /o/-/	950	16.7	507	270
1000928	1-CXKE-V 3Cx10 /o/-/	950	16.9	504	270
1000957	1-CXKE-V 5Cx10 /o/-/	900	20.1	795	450
1000949	1-CXKE-V 4Dx10 /o/-/	650	18.4	650	360
<b>16 mm<sup>2</sup></b>					
1000876	1-CXKE-V 1x16 /o/č/	7,000	8.5	202	144
1000898	1-CXKE-V 2x16 /o/-/	2,100	18.1	573	288
1000912	1-CXKE-V 3Bx16 /o/-/	1,800	19.4	743	432
1000941	1-CXKE-V 4Bx16 /o/-/	1,500	20.8	925	576
1000967	1-CXKE-V 5x16 /o/-/	650	22.7	1,150	720
1003650	1-CXKE-V 5Cx16 /h/-/	1,200	22.7	1,150	720
1000958	1-CXKE-V 5Cx16 /o/-/	1,200	22.7	1,150	720
1000974	1-CXKE-V 7x16 /o/-/	700	24.7	1,476	1,008
<b>25 mm<sup>2</sup></b>					
1000881	1-CXKE-V 1x25 /o/č/	5,000	10.8	314	227
1000882	1-CXKE-V 1x25 /o/zž/	5,000	10.8	315	227
1000900	1-CXKE-V 2x25 /o/-/	1,300	21.9	840	454
1000896	1-CXKE-V 2Ax25 /o/-/	1,300	21.9	840	454
1000914	1-CXKE-V 3Bx25 /o/-/	1,100	23.6	1,102	681
1000942	1-CXKE-V 4Bx25 /o/-/	1,000	26.1	1,452	906
1000943	1-CXKE-V 4Bx25 /o/-/	900	25.6	1,392	908
1000961	1-CXKE-V 5Cx25 /o/-/	700	28.4	1,763	1,135
<b>35 mm<sup>2</sup></b>					
1000884	1-CXKE-V 1x35 /o/č/	3,000	11.8	410	318
1000901	1-CXKE-V 2x35 /o/-/	1,100	23.9	1,082	636
1000935	1-CXKE-V 3x35 /o/-/	900	26.0	1,460	954
1000915	1-CXKE-V 3Bx35 /o/-/	900	26.0	1,460	954
1000944	1-CXKE-V 4Bx35 /o/-/	700	28.4	1,852	1,272
1000945	1-CXKE-V 4Bx35 /o/-/	700	29.4	1,919	1,232
1000962	1-CXKE-V 5Cx35 /o/-/	560	31.3	2,302	1,590
<b>50 mm<sup>2</sup></b>					
1000886	1-CXKE-V 1x50 /o/č/	2,000	13.2	546	438
1000909	1-CXKE-V 3Ax50 /o/-/	700	29.5	1,937	1,314
1000918	1-CXKE-V 3Bx50 /o/-/	600	29.5	1,937	1,314
1000946	1-CXKE-V 4Bx50 /o/-/	500	32.0	2,484	1,752
1000963	1-CXKE-V 5Cx50 /o/-/	450	35.1	3,054	2,190
<b>70 mm<sup>2</sup></b>					
1000888	1-CXKE-V 1x70 /o/č/	2,000	15.0	761	633
1000903	1-CXKE-V 2x70 /o/-/	600	31.1	1,986	1,266
1000936	1-CXKE-V 3x70 /o/-/	500	33.6	2,672	1,899
1000910	1-CXKE-V 3Ax70 /o/-/	500	33.6	2,672	1,899
1000955	1-CXKE-V 4x70 /o/-/	400	36.5	3,419	2,532

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-CXKE-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003332	1-CXKE-V 4Bx70 /o/-/	400	36.5	3,421	2,532
1000965	1-CXKE-V 5Cx70 /o/-/	300	40.5	4,282	3,165
1000966	1-CXKE-V 5Cx70 /o/-/	300	40.5	4,365	3,165
<b>95 mm<sup>2</sup></b>					
1000889	1-CXKE-V 1x95 /o/č/	2,000	16.7	1,012	864
1000937	1-CXKE-V 3x95 /o/-/	400	37.6	3,612	2,592
<b>nad 95 mm<sup>2</sup></b>					
1000874	1-CXKE-V 1x120 /o/č/	1,600	19.1	1,290	1,099
1000875	1-CXKE-V 1x150 /o/č/	850	20.6	1,576	1,363
1000877	1-CXKE-V 1x185 /o/č/	1,300	22.8	1,924	1,683
1000879	1-CXKE-V 1x240 /o/č/	900	25.4	2,450	2,168
1000880	1-CXKE-V 1x240 /o/zž/	900	25.4	2,450	2,168

**dimension variants**

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor diameter mm	conductor cross-section mm <sup>2</sup>	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CHKE-V

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1001429	1-CHKE-V 3x0,5 /o/-/	3,300	9.6	112	14
<b>0,75 mm<sup>2</sup></b>					
1001426	1-CHKE-V 3Dx0,75 /o/-/	2,800	9.8	124	20
1001465	1-CHKE-V 5Dx0,75 /o/-/	2,800	12.0	184	34
<b>1 mm<sup>2</sup></b>					
1001366	1-CHKE-V 1x2x1 /h/-/	2,600	9.7	118	18
1001388	1-CHKE-V 2x1 /o/-/	2,600	9.7	118	18
1001378	1-CHKE-V 2Ax1 /o/-/	2,600	9.7	118	18
1001430	1-CHKE-V 3x1 /o/-/	2,600	10.8	147	27
1001450	1-CHKE-V 4x1 /o/-/	2,500	12.1	188	36



# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CHKE-V

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001447	1-CHKE-V 4Dx1 /o/-/	2,500	12.1	188	36
1001431	1-CHKE-V 3x2x1 /o/-/	600	14.4	265	54
1001479	1-CHKE-V 8Cx1 /o/-/	2,600	15.9	344	72
1001480	1-CHKE-V 9Cx1 /o/-/	2,600	15.9	349	81
1001374	1-CHKE-V 24Cx1 /o/-/	1,300	21.9	693	216
<b>1,5 mm<sup>2</sup></b>					
1001359	1-CHKE-V 1x1,5 /h/č/	19,000	5.2	46	14
1001379	1-CHKE-V 2Ax1,5 /o/-/	1,800	10.7	148	27
1005546	1-CHKE-V 3Ax1,5 /h/-/	1,800	11.9	188	41
1001395	1-CHKE-V 3Ax1,5 /o/-/	1,800	11.9	188	41
1001401	1-CHKE-V 3Bx1,5 /o/-/	1,800	11.5	179	41
1003925	1-CHKE-V 3Cx1,5 /h/-/	1,800	11.5	179	41
1001417	1-CHKE-V 3Cx1,5 /o/-/	1,800	11.5	179	41
1001427	1-CHKE-V 3Dx1,5 /o/-/	1,800	11.5	179	41
1001432	1-CHKE-V 4Bx1,5 /o/-/	1,800	13.4	237	54
1001448	1-CHKE-V 4Dx1,5 /o/-/	1,800	13.4	237	54
1001466	1-CHKE-V 5x1,5 /o/-/	1,800	13.2	253	68
1003679	1-CHKE-V 5Cx1,5 /h/-/	1,800	13.3	249	68
1001455	1-CHKE-V 5Cx1,5 /o/-/	1,800	13.3	249	68
1001473	1-CHKE-V 7x1,5 /o/-/	1,800	14.0	305	95
1001470	1-CHKE-V 7Cx1,5 /o/-/	1,800	14.0	305	95
1003676	1-CHKE-V 7Dx1,5 /h/-/	1,800	14.0	305	95
1001472	1-CHKE-V 7Dx1,5 /o/-/	1,800	14.0	305	95
1001350	1-CHKE-V 12Cx1,5 /o/-/	1,800	18.5	506	162
1001353	1-CHKE-V 12Dx1,5 /o/-/	1,800	18.5	526	162
1001356	1-CHKE-V 13Cx1,5 /o/-/	1,700	20.4	580	176
1001357	1-CHKE-V 19Cx1,5 /o/-/	1,500	21.0	696	257
1001375	1-CHKE-V 24Cx1,5 /o/-/	900	24.9	931	324
1001377	1-CHKE-V 27Cx1,5 /o/-/	900	25.8	1,013	365
1001392	1-CHKE-V 30Cx1,5 /o/-/	800	26.9	1,112	405
1001393	1-CHKE-V 37Cx1,5 /o/-/	800	27.6	1,240	500
<b>2,5 mm<sup>2</sup></b>					
1001391	1-CHKE-V 2x2,5 /o/-/	1,400	11.6	179	45
1001380	1-CHKE-V 2Ax2,5 /o/-/	1,500	11.7	186	45
1001386	1-CHKE-V 2Dx2,5 /o/-/	1,400	11.6	183	45
1001397	1-CHKE-V 3Ax2,5 /o/-/	3,500	12.4	223	68
1003653	1-CHKE-V 3Bx2,5 /h/-/	1,400	12.4	223	68
1001404	1-CHKE-V 3Bx2,5 /o/-/	1,400	12.4	223	68
1003680	1-CHKE-V 3Cx2,5 /h/-/	1,400	12.4	223	68
1001420	1-CHKE-V 3Cx2,5 /o/-/	1,400	12.4	223	68
1001435	1-CHKE-V 4Bx2,5 /o/-/	1,400	13.1	273	90
1001449	1-CHKE-V 4Dx2,5 /o/-/	1,400	13.0	271	90
1003678	1-CHKE-V 5Cx2,5 /h/-/	1,500	14.2	323	113

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CHKE-V

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001458	1-CHKE-V 5Cx2,5 /o/-/	1,500	14.2	323	113
1001471	1-CHKE-V 7Cx2,5 /o/-/	1,400	15.2	385	158
1001476	1-CHKE-V 7x2,5 /o/-/	1,400	15.2	385	158
1001351	1-CHKE-V 12Cx2,5 /o/-/	1,400	20.1	661	270
1001354	1-CHKE-V 12Dx2,5 /o/-/	1,400	20.1	660	270
1001358	1-CHKE-V 19Cx2,5 /o/-/	1,200	23.0	937	428
1001376	1-CHKE-V 24Cx2,5 /o/-/	800	27.5	1,306	540
1001394	1-CHKE-V 37Cx2,5 /o/-/	600	30.9	1,731	833
<b>4 mm<sup>2</sup></b>					
1001369	1-CHKE-V 1x4 /o/zž/	33,000	6.0	75	36
1001383	1-CHKE-V 2Ax4 /o/-/	1,850	12.6	231	72
1004829	1-CHKE-V (O) 3x4 /h/-/	1,130	13.3	283	108
1001411	1-CHKE-V 3Bx4 /o/-/	1,150	13.3	283	108
1001424	1-CHKE-V 3Cx4 /o/-/	1,150	13.4	285	108
1001428	1-CHKE-V 3Dx4 /o/-/	1,150	13.4	285	108
1001440	1-CHKE-V 4Bx4 /o/-/	1,100	14.3	347	144
1001462	1-CHKE-V 5Cx4 /o/-/	1,150	15.4	430	180
1001477	1-CHKE-V 7x4 /o/-/	1,100	16.6	513	252
<b>6 mm<sup>2</sup></b>					
1001385	1-CHKE-V 2Ax6 /o/-/	2,900	13.7	291	108
1001387	1-CHKE-V 2Dx6 /o/-/	2,900	13.7	290	108
1001425	1-CHKE-V 3Cx6 /o/-/	1,300	14.6	364	162
1001452	1-CHKE-V 4x6 /o/-/	800	15.6	447	216
1001442	1-CHKE-V 4Bx6 /o/-/	800	15.6	447	216
1001463	1-CHKE-V 5Cx6 /o/-/	1,400	16.9	562	270
1001478	1-CHKE-V 7x6 /o/-/	1,400	18.8	700	378
<b>10 mm<sup>2</sup></b>					
1001456	1-CHKE-V 5Cx10 /o/-/	900	20.1	852	450
1001474	1-CHKE-V 7x10 /o/-/	900	21.8	1,045	630
<b>16 mm<sup>2</sup></b>					
1001457	1-CHKE-V 5Cx16 /o/-/	1,250	22.7	1,208	720
1001475	1-CHKE-V 7x16 /o/-/	1,000	24.8	1,513	1,008
<b>nad 16 mm<sup>2</sup></b>					
1001460	1-CHKE-V 5Cx25 /o/-/	750	28.4	1,811	1,135
1001461	1-CHKE-V 5Cx35 /o/-/	600	31.3	2,386	1,590
1001464	1-CHKE-V 5Cx70 /o/-/	300	40.5	4,415	3,165
1001469	1-CHKE-V 5x70 /o/-/	300	40.5	4,416	3,165

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CXFE-V

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with XLPE conductor insulation and HFFR jacket.
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,75 mm<sup>2</sup></b>					
1000561	1-CXFE-V 2x2x0,75 /o/-/	700	12.7	180	30
<b>1 mm<sup>2</sup></b>					
1000554	1-CXFE-V 2Ax1 /o/-/	2,500	10.2	120	21
1005429	1-CXFE-V 3Ax1 /h/-/	2,550	10.8	139	30
1000569	1-CXFE-V 3Ax1 /o/-/	2,550	10.8	139	30
1000581	1-CXFE-V 4Bx1 /o/-/	2,500	12.6	186	39
1000591	1-CXFE-V 4Dx1 /h/-/	2,500	12.5	184	38
1000602	1-CXFE-V 5x1 /o/-/	2,600	12.8	198	48
1000599	1-CXFE-V 5Dx1 /o/-/	2,600	12.8	198	48
1000604	1-CXFE-V 7Cx1 /o/-/	1,500	13.1	220	65

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CXFE-V

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000607	1-CXFE-V 7Dx1 /o/-/	2,500	13.1	220	65
1000534	1-CXFE-V 12Cx1 /o/-/	2,500	16.3	345	110
1000537	1-CXFE-V 14Cx1 /o/-/	1,500	18.7	441	129
1000541	1-CXFE-V 19Cx1 /o/-/	1,900	19.2	496	173
1000547	1-CXFE-V 24Cx1 /o/-/	1,200	22.5	660	219
1000552	1-CXFE-V 27x1 /o/-/	1,200	23.3	715	245
1000562	1-CXFE-V 30Cx1 /o/-/	1,000	24.1	771	273
1000565	1-CXFE-V 37Cx1 /o/-/	1,000	24.8	855	335
1000567	1-CXFE-V 37Dx1 /o/-/	1,000	24.8	855	335
<b>1,5 mm²</b>					
1000555	1-CXFE-V 2Ax1,5 /o/-/	1,800	11.2	149	30
1000576	1-CXFE-V 3Cx1,5 /o/-/	1,800	12.0	176	43
1000582	1-CXFE-V 4Bx1,5 /o/-/	1,800	13.9	234	57
1000593	1-CXFE-V 5Cx1,5 /o/-/	1,800	13.8	242	70
1000605	1-CXFE-V 7Cx1,5 /o/-/	1,800	14.5	282	97
1000609	1-CXFE-V 8Cx1,5 /o/-/	1,000	17.4	321	114
1000529	1-CXFE-V 10x1,5 /o/-/	1,800	19.0	458	137
1000532	1-CXFE-V 12Ax1,5 /o/-/	1,200	18.1	421	172
1000538	1-CXFE-V 14x1,5 /o/-/	1,550	20.9	574	192
1000542	1-CXFE-V 19Dx1,5 /o/-/	1,400	21.5	652	259
1000553	1-CXFE-V 27x1,5 /o/-/	900	26.3	952	367
1000563	1-CXFE-V 30Cx1,5 /o/-/	400	27.4	892	417
1000566	1-CXFE-V 37Cx1,5 /o/-/	700	28.5	1,179	502
1000580	1-CXFE-V 48Cx1,5 /o/-/	250	33.4	1,342	673
<b>2,5 mm²</b>					
1000560	1-CXFE-V 2x2,5 /o/-/	1,400	12.2	185	48
1000557	1-CXFE-V 2Ax2,5 /o/-/	1,400	11.6	180	49
1000570	1-CXFE-V 3Ax2,5 /o/-/	1,400	12.4	201	71
1000578	1-CXFE-V 3Cx2,5 /o/-/	1,400	12.8	218	70
1003788	1-CXFE-V 4x2,5 /o/-/	1,400	13.6	260	93
1000590	1-CXFE-V 4Cx2,5 /o/-/	1,400	13.6	260	93
1000600	1-CXFE-V 5Dx2,5 /o/-/	1,400	14.6	306	115
1000606	1-CXFE-V 7Cx2,5 /o/-/	1,400	15.7	370	160
1000530	1-CXFE-V 10x2,5 /o/-/	1,400	20.6	600	228
1000535	1-CXFE-V 12Dx2,5 /o/-/	1,500	19.7	554	282
1000539	1-CXFE-V 14x2,5 /o/-/	1,200	22.8	758	318
1000543	1-CXFE-V 19Dx2,5 /o/-/	600	22.7	789	442
1000551	1-CXFE-V 24Cx2,5 /o/-/	400	27.1	1,009	562
1000564	1-CXFE-V 30Cx2,5 /o/-/	600	30.4	1,436	677
1000568	1-CXFE-V 37Dx2,5 /o/-/	300	30.1	1,445	859
<b>4 mm²</b>					
1000558	1-CXFE-V 2Ax4 /o/-/	1,000	12.4	224	76
1000579	1-CXFE-V 3Cx4 /o/-/	1,000	13.4	258	114

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-CXFE-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000588	1-CXFE-V 4Bx4 /o/-/	1,000	14.4	319	150
1000598	1-CXFE-V 5Cx4 /o/-/	1,000	15.4	384	187
1000608	1-CXFE-V 7Dx4 /o/-/	1,000	16.8	481	262
1000533	1-CXFE-V 12Ax4 /o/-/	1,500	21.7	751	437
<b>6 mm²</b>					
1000559	1-CXFE-V 2Ax6 /o/-/	800	14.0	303	113
1000571	1-CXFE-V 3Ax6 /o/-/	800	14.8	341	172
1000592	1-CXFE-V 4Dx6 /o/-/	800	15.9	429	227
1000601	1-CXFE-V 5Dx6 /o/-/	800	17.3	523	287
<b>10 mm²</b>					
1000577	1-CXFE-V 3Cx10 /o/-/	600	16.4	489	282
1000583	1-CXFE-V 4Bx10 /o/-/	2,000	19.0	661	363
1000589	1-CXFE-V 4Cx10 /o/-/	600	18.1	621	373
1000594	1-CXFE-V 5Cx10 /o/-/	600	19.7	774	472
<b>16 mm²</b>					
1000572	1-CXFE-V 3Bx16 /o/-/	700	19.7	738	447
1000584	1-CXFE-V 4Bx16 /o/-/	700	21.4	954	597
1000595	1-CXFE-V 5Cx16 /o/-/	700	23.6	1,165	742
<b>nad 16 mm²</b>					
1000573	1-CXFE-V 3Bx25 /o/-/	550	25.1	1,105	697
1000585	1-CXFE-V 4Bx25 /o/-/	450	27.1	1,416	924
1000596	1-CXFE-V 5Cx25 /o/-/	350	30.1	1,764	1,149
1000587	1-CXFE-V 4Bx35 /o/-/	350	30.1	1,861	1,287
1000597	1-CXFE-V 5Cx35 /o/-/	250	33.1	2,319	1,608
1000544	1-CXFE-V 1x120 /o/č/	700	23.3	1,437	1,092
1000545	1-CXFE-V 1x240 /o/č/	500	30.0	2,639	2,152

**dimension variants**

core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1



# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CHFE-V

cables for fixed bedding

#### use

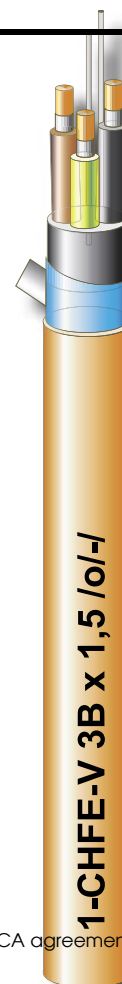
For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
	0,75 mm <sup>2</sup>				
1003989	1-CHFE-V 1x2x0,75 /o/-/	1,800	10.0	118	16
	1 mm <sup>2</sup>				
1003609	1-CHFE-V 1P1 /r/čh cores/	1,800	10.0	118	16
1001180	1-CHFE-V 2x1 /o/-/	2,600	10.1	126	20
1001184	1-CHFE-V 3x1 /o/-/	2,600	10.7	148	29
1001190	1-CHFE-V 4Cx1 /o/-/	1,800	12.6	196	39
1001205	1-CHFE-V 7x1 /o/-/	2,600	13.2	237	66
1001171	1-CHFE-V 12x1 /o/-/	2,600	16.3	385	110
1001177	1-CHFE-V 19x1 /o/-/	1,900	19.1	556	173

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-CHFE-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1,5 mm <sup>2</sup>					
1001181	1-CHFE-V 2x1,5 /o/-/	1,800	11.1	152	29
1003774	1-CHFE-V 2Ax1,5 /o/-/	1,800	11.1	152	29
1001185	1-CHFE-V 3x1,5 /o/-/	1,800	12.0	184	43
1001192	1-CHFE-V 4x1,5 /o/-/	1,800	13.8	243	56
1003626	1-CHFE-V 4Dx1,5 /h/-/	1,800	13.8	242	56
1001198	1-CHFE-V 5x1,5 /o/-/	1,800	13.7	253	70
1001172	1-CHFE-V 12x1,5 /o/-/	1,800	18.9	531	164
1001178	1-CHFE-V 19x1,5 /o/-/	1,450	21.4	733	259
1001189	1-CHFE-V 48x1,5 /o/-/	500	34.4	1,771	650
2,5 mm <sup>2</sup>					
1001194	1-CHFE-V 4x2,5 /o/-/	1,400	13.5	270	92
1001204	1-CHFE-V 7Cx2,5 /o/-/	1,400	15.7	392	160
1001170	1-CHFE-V 12Cx2,5 /o/-/	1,400	20.6	669	272
1001179	1-CHFE-V 24x2,5 /o/-/	750	28.3	1,288	542
4 mm <sup>2</sup>					
1001182	1-CHFE-V 2x4 /o/-/	1,100	13.1	236	74
1001191	1-CHFE-V 4Cx4 /o/-/	1,100	14.8	354	146
1001203	1-CHFE-V 5x4 /o/-/	1,100	15.9	424	182
nad 4 mm <sup>2</sup>					
1001199	1-CHFE-V 5x10 /o/-/	900	20.6	838	452
1001201	1-CHFE-V 5x16 /o/-/	1,200	23.2	1,192	722
1001202	1-CHFE-V 5x25 /o/-/	700	28.9	1,818	1,137

**dimension variants**

core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

# POWER CABLES 0,6 - 1 kV

FIRE-RETARDANT AND FIRE-PROOF

1-C5XKE-V; 1-C5HKE-V

cables for fixed bedding

## use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1000341	1-C5XKE-V 5x0,5 /o/-/	2,800	12.1	164	22
1005436	1-C5XKE-V 19x0,5 /h/numberedcores/	2,200	17.7	362	82
<b>0,75 mm<sup>2</sup></b>					
1000314	1-C5XKE-V 2Ax0,75 /o/-/	2,600	9.7	110	13
1003967	1-C5XKE-V 2Dx0,75 /o/-/	2,600	9.7	110	13
1000328	1-C5XKE-V 3x0,75 /o/-/	2,600	10.2	123	20
1000335	1-C5XKE-V 4x0,75 /o/-/	2,600	12.1	170	27
1000345	1-C5XKE-V 7x0,75 /o/-/	2,500	12.6	198	46
<b>1 mm<sup>2</sup></b>					
1005437	1-C5XKE-V 2Ax1 /h/-/	2,200	10.1	119	17
1000315	1-C5XKE-V 2Ax1 /o/-/	2,200	10.1	119	17

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-C5XKE-V; 1-C5HKE-V**

cables for free bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000215	1-C5XKE-V 3Cx1 /o/-/	2,200	10.7	138	26
1005435	1-C5XKE-V 12Cx1 /h/-/	2,200	16.7	353	104
1000301	1-C5XKE-V 12Cx1 /o/-/	2,200	16.7	353	104
1000313	1-C5XKE-V 24x1 /o/-/	1,200	23.1	674	207
<b>1,5 mm²</b>					
1000200	1-C5XKE-V 1x1,5 /o/č/	48,000	5.3	42	13
1000316	1-C5XKE-V 2Ax1,5 /o/-/	1,700	10.9	142	25
1000323	1-C5XKE-V 3Ax1,5 /o/-/	2,500	11.8	172	38
1000324	1-C5XKE-V 3Cx1,5 /o/-/	2,500	11.8	172	38
1000333	1-C5XKE-V 4Bx1,5 /o/-/	1,700	13.7	230	50
1000337	1-C5XKE-V 5Cx1,5 /o/-/	1,600	13.5	233	63
1000346	1-C5XKE-V 7x1,5 /o/-/	1,700	14.4	277	88
1000302	1-C5XKE-V 12Cx1,5 /o/-/	1,700	19.0	473	151
1000306	1-C5XKE-V 19Cx1,5 /o/-/	1,400	21.6	641	239
<b>2,5 mm²</b>					
1000207	1-C5XKE-V 1x2,5 /o/č/	36,000	5.8	55	21
1000317	1-C5XKE-V 2Ax2,5 /o/-/	1,200	12.1	182	41
1000325	1-C5XKE-V 3Cx2,5 /o/-/	1,400	12.9	216	62
1000334	1-C5XKE-V 4Bx2,5 /o/-/	1,280	13.7	256	83
1000217	1-C5XKE-V 5Cx2,5 /o/-/	1,300	14.8	303	104
1000305	1-C5XKE-V 12x2,5 /o/-/	1,200	21.1	631	248
<b>4 mm²</b>					
1000318	1-C5XKE-V 2Ax4 /o/-/	1,200	13.1	227	68
1000326	1-C5XKE-V 3Cx4 /o/-/	950	14.0	277	102
1000339	1-C5XKE-V 5Cx4 /o/-/	950	16.1	399	170
<b>6 mm²</b>					
1000212	1-C5XKE-V 1x6 /o/č/	21,000	6.9	94	52
1000327	1-C5XKE-V 3Cx6 /o/-/	1,200	15.3	358	156
1000340	1-C5XKE-V 5Cx6 /o/-/	1,100	17.9	532	260
<b>10 mm²</b>					
1000201	1-C5XKE-V 1x10 /o/č/	14,000	8.0	140	88
1000307	1-C5XKE-V 1x10 /o/zž/	14,000	8.0	140	88
1000338	1-C5XKE-V 5Cx10 /o/-/	750	21.3	816	441
<b>16 mm²</b>					
1000205	1-C5XKE-V 1x16 /o/č/	8,000	9.6	201	138
1005314	1-C5XKE-V 1x16 /o/zž/	8,000	9.6	201	138
1000343	1-C5XKE-V 5x16 /o/-/	900	25.8	1,200	688
<b>nad 16 mm²</b>					
1000209	1-C5XKE-V 1x25 /o/č/	5,000	11.6	305	215
1000309	1-C5XKE-V 1x35 /o/č/	5,000	11.9	390	306
1000211	1-C5XKE-V 1x50 /o/č/	2,500	13.8	554	441
1005434	1-C5XKE-V 1x70 /h/č/	1,700	18.0	798	627
1000311	1-C5XKE-V 1x70 /o/č/	1,700	18.0	798	627

**POWER CABLES 0,6 - 1 kV****FIRE-RETARDANT AND FIRE-PROOF****1-C5XKE-V; 1-C5HKE-V**

cables for free bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000213	1-C5XKE-V 1x70 /o/zž/	2,200	18.0	798	627
1000214	1-C5XKE-V 1x95 /o/č/	1,300	19.6	1,026	833
1000312	1-C5XKE-V 1x95 /o/zž/	1,700	19.6	1,026	833
1000202	1-C5XKE-V 1x120 /o/č/	1,100	20.1	1,252	1,050
1000203	1-C5XKE-V 1x120 /o/zž/	1,100	20.1	1,252	1,050
1005431	1-C5XKE-V 1x150 /h/č/	1,000	23.9	1,545	1,313
1000204	1-C5XKE-V 1x150 /o/č/	1,000	23.9	1,545	1,313
1000308	1-C5XKE-V 1x150 /o/zž/	1,000	23.9	1,545	1,313
1005433	1-C5XKE-V 1x185 /h/č/	700	25.9	1,905	1,624
1000206	1-C5XKE-V 1x185 /o/č/	700	25.9	1,905	1,624
1005432	1-C5XKE-V 1x240 /h/č/	700	29.0	2,463	2,139
1000208	1-C5XKE-V 1x240 /o/č/	700	29.0	2,463	2,139

**dimension variants**

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

## POWER CABLES 0,6 - 1 kV

**FIRE-RETARDANT AND FIRE-PROOF**

## 1-C5XFE-V; 1-C5HFE-V

cables for free bedding

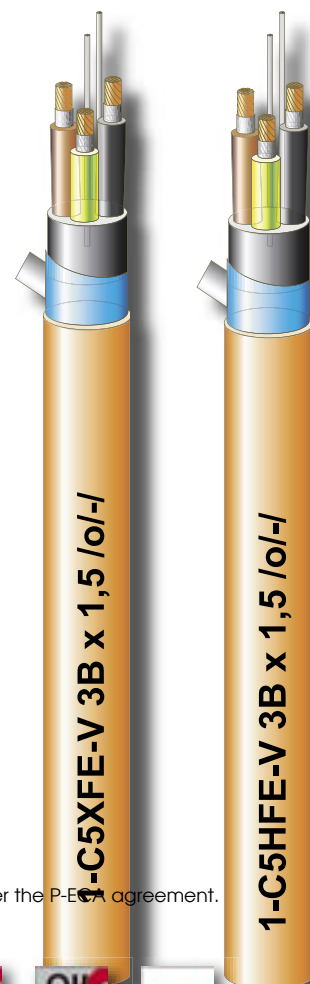
## use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-EFTA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1-C5XFE-V					
1000163	1-C5XFE-V 4x0,75 /o/-/	2,600	12.6	177	29
1000164	1-C5XFE-V 4x1 /o/-/	2,200	13.1	195	37
1000157	1-C5XFE-V 3x1,5 /o/-/	1,700	12.3	180	40
1000158	1-C5XFE-V 3x2,5 /o/-/	1,200	13.4	225	65
1000165	1-C5XFE-V 4x1,5 /o/-/	1,700	14.2	238	53
1000159	1-C5XFE-V 3x4 /o/-/	1,100	14.5	286	104
1000162	1-C5XFE-V 4Dx4 /o/-/	950	15.4	342	138



# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-C5XKE-V; 1-C5HKE-V

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1000160	1-C5XFE-V 3x6 /o/-/	1,200	15.8	367	158
1000166	1-C5XFE-V 4x10 /o/-/	800	20.1	681	355
<b>1-C5HFE-V</b>					
1003555	1-C5HFE-V 12Cx1,5 /o/-/	1,700	19.5	520	154
1003570	1-C5HFE-V 2Bx1,5 /o/-/	1,700	11.4	156	28
1003566	1-C5HFE-V 4Bx2,5 /o/-/	1,250	14.2	279	85

## dimension variants

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

## conductor parameters

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
 - full copper conductors with the nominal cross-section of 25 mm<sup>2</sup> and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# POWER CABLES 0,6 - 1 kV

## FIRE-RETARDANT AND FIRE-PROOF

### 1-CHKFH-V

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people.

Shielded cables are designed for the connection in systems where resistance to interference (EMC) is required, in circuits of impulse supply with frequency converter and everywhere the resistance to transmission or effusion of interfering signals is required. At all bedding circumstances the concentric shielding conductor may be used as a protective - central or null - conductor. At the same time, it can serve as protective earthing and shielding.

Cables can be used in environment with the threat of fire and can installed on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

#### features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### dimension variants

core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70
0,75	1-70
1	1-70
1,5	1-70
2,5	1-70
4	1-40

core cross-section in mm <sup>2</sup>	number of cores
6	1-40
10	1-25
16	1-25
25	1-15
35	1-15
50	1-7

core cross-section in mm <sup>2</sup>	number of cores
70	1-7
95	1-3
120	1
150	1
185	1
240	1
300	1

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT

### CXKE-R KERAMEX®

cables for fixed bedding

## use

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

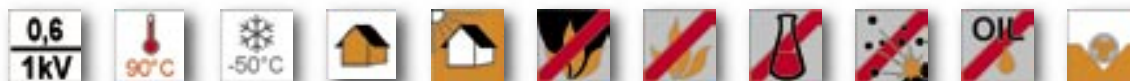
## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1004205	1-CXKE-R 2x0,5 /o/-/ KERAMEX®	4,700	6.0	41	9
1004185	1-CXKE-R 2Ax0,5 /o/-/ KERAMEX®	4,700	6.0	41	9
1004207	1-CXKE-R 3x0,5 /o/-/ KERAMEX®	4,600	6.0	40	9
1004209	1-CXKE-R 4x0,5 /o/-/ KERAMEX®	4,600	7.6	62	18
1004239	1-CXKE-R 5x0,5 /o/-/ KERAMEX®	4,600	8.4	74	23
1004186	1-CXKE-R 7x0,5 /o/-/ KERAMEX®	4,600	8.0	86	32
<b>1 mm<sup>2</sup></b>					
1004191	1-CXKE-R 2x1 /o/-/ KERAMEX®	3,500	6.6	53	18
1004262	1-CXKE-R 2Ax1 /o/-/ KERAMEX®	3,500	6.6	53	18
1004257	1-CXKE-R 2Dx1 /o/-/ KERAMEX®	3,500	6.6	53	18

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT

### CXKE-R KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004220	1-CXKE-R 3x1 /o/-/ KERAMEX ®	3,600	7.1	68	27
1004210	1-CXKE-R 4x1 /o/-/ KERAMEX ®	3,600	8.5	86	36
1004201	1-CXKE-R 5x1 /o/-/ KERAMEX ®	3,600	9.0	101	45
1004235	1-CXKE-R 7x1 /o/-/ KERAMEX ®	3,600	9.0	125	63
1004258	1-CXKE-R 7Cx1 /o/-/ KERAMEX ®	3,600	9.0	125	63
1004249	1-CXKE-R 12Cx1 /o/-/ KERAMEX ®	2,300	12.2	211	108
1004254	1-CXKE-R 12Dx1 /o/-/ KERAMEX ®	2,300	12.2	211	108
1004256	1-CXKE-R 14Cx1 /o/-/ KERAMEX ®	2,300	13.6	243	126
1004251	1-CXKE-R 19Cx1 /h/-/ KERAMEX ®	2,400	14.1	307	171
1004250	1-CXKE-R 24Cx1 /o/-/ KERAMEX ®	1,800	16.9	384	216
1004247	1-CXKE-R 37Cx1 /h/-/ KERAMEX ®	1,300	19.1	570	333
1004248	1-CXKE-R 48Cx1 /h/-/ KERAMEX ®	900	26.7	754	432
<b>1,5 mm²</b>					
1003833	1-CXKE-R 2Ax1,5 /o/-/ KERAMEX ®	2,400	7.6	70	27
1004052	1-CXKE-R 3Ax1,5 /o/-/ KERAMEX ®	2,400	8.1	90	41
1004199	1-CXKE-R 3Bx1,5 /o/-/ KERAMEX ®	2,410	8.1	90	41
1003981	1-CXKE-R 3Cx1,5 /o/-/ KERAMEX ®	2,400	8.1	90	41
1004212	1-CXKE-R 3Dx1,5 /o/-/ KERAMEX ®	2,400	8.1	90	41
1004240	1-CXKE-R 4x1,5 /o/-/ KERAMEX ®	2,400	10.2	125	54
1004198	1-CXKE-R 4Bx1,5 /o/-/ KERAMEX ®	2,400	10.2	125	54
1004189	1-CXKE-R 4Cx1,5 /o/-/ KERAMEX ®	2,400	10.2	125	54
1004217	1-CXKE-R 4Dx1,5 /o/-/ KERAMEX ®	2,400	10.2	125	54
1003843	1-CXKE-R 5Cx1,5 /o/-/ KERAMEX ®	2,400	10.4	145	68
1004221	1-CXKE-R 7x1,5 /o/-/ KERAMEX ®	2,400	10.7	183	95
1003641	1-CXKE-R 7Cx1,5 /o/-/ KERAMEX ®	2,400	10.7	183	95
1003765	1-CXKE-R 10Cx1,5 /o/-/ KERAMEX ®	2,300	14.2	274	135
1005230	1-CXKE-R (J) 12x1,5 /o/-/ KERAMEX ®	2,400	14.1	293	162
1004206	1-CXKE-R 12x1,5 /o/-/ KERAMEX ®	2,400	14.1	293	162
1004202	1-CXKE-R 12Cx1,5 /h/-/ KERAMEX ®	2,400	14.1	293	162
1003640	1-CXKE-R 12Cx1,5 /o/-/ KERAMEX ®	2,400	14.1	291	162
1004255	1-CXKE-R 12Dx1,5 /o/-/ KERAMEX ®	2,400	14.1	293	162
1004214	1-CXKE-R 19x1,5 /o/-/ KERAMEX ®	2,400	16.3	432	257
1004192	1-CXKE-R 19Cx1,5 /h/-/ KERAMEX ®	2,400	16.3	432	257
1003968	1-CXKE-R 19Cx1,5 /o/-/ KERAMEX ®	2,400	16.3	432	257
1004215	1-CXKE-R 24x1,5 /o/-/ KERAMEX ®	1,800	20.0	560	324
1004203	1-CXKE-R 24Cx1,5 /o/-/ KERAMEX ®	1,800	20.0	561	324
1004228	1-CXKE-R 37Cx1,5 /h/-/ KERAMEX ®	1,300	22.3	807	500
1004246	1-CXKE-R 48Cx1,5 /h/-/ KERAMEX ®	630	31.9	1,094	648
<b>2,5 mm²</b>					
1004233	1-CXKE-R 2x2,5 /o/-/ KERAMEX ®	1,800	8.4	94	45
1003649	1-CXKE-R 2Ax2,5 /o/-/ KERAMEX ®	1,800	8.4	94	45
1004243	1-CXKE-R 3x2,5 /o/-/ KERAMEX ®	1,800	9.0	124	68
1003605	1-CXKE-R 3Cx2,5 /o/-/ KERAMEX ®	1,800	9.0	124	68

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CXKE-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004241	1-CXKE-R 4x2,5 /o/-/ KERAMEX ®	1,800	10.1	167	90
1004245	1-CXKE-R 4Bx2,5 /o/-/ KERAMEX ®	1,800	10.1	167	90
1004236	1-CXKE-R 5x2,5 /o/-/ KERAMEX ®	1,800	11.0	203	113
1003844	1-CXKE-R 5Cx2,5 /o/-/ KERAMEX ®	1,800	11.0	202	113
1004219	1-CXKE-R 7x2,5 /o/-/ KERAMEX ®	1,800	11.9	259	158
1004187	1-CXKE-R 7Cx2,5 /o/-/ KERAMEX ®	1,800	11.9	259	158
1004200	1-CXKE-R 12x2,5 /o/-/ KERAMEX ®	1,800	15.8	421	270
1005235	1-CXKE-R 12Cx2,5 /o/-/ KERAMEX ®	1,800	15.8	421	270
<b>4 mm²</b>					
1004223	1-CXKE-R 2x4 /o/-/ KERAMEX ®	1,400	9.7	136	72
1003622	1-CXKE-R 2Ax4 /o/-/ KERAMEX ®	1,400	9.7	136	72
1004204	1-CXKE-R 3x4 /o/-/ KERAMEX ®	1,400	10.4	181	108
1004264	1-CXKE-R 3Cx4 /č/-/ KERAMEX ®	1,400	10.4	181	108
1003756	1-CXKE-R 3Cx4 /o/-/ KERAMEX ®	1,400	10.4	181	108
1003793	1-CXKE-R 3Cx4 /o/-/ KERAMEX ®	1,400	10.4	181	108
1004193	1-CXKE-R 4x4 /o/-/ KERAMEX ®	1,400	11.2	232	144
1004263	1-CXKE-R 4Bx4 /h/-/ KERAMEX ®	1,400	11.2	231	144
1004231	1-CXKE-R 4Bx4 /o/-/ KERAMEX ®	1,400	11.2	231	144
1004208	1-CXKE-R 5x4 /o/-/ KERAMEX ®	1,400	12.2	283	180
1004242	1-CXKE-R 5Cx4 /o/-/ KERAMEX ®	1,400	12.2	282	180
1004229	1-CXKE-R 7x4 /o/-/ KERAMEX ®	1,400	13.3	370	252
1004196	1-CXKE-R 12x4 /o/-/ KERAMEX ®	1,400	17.7	605	432
<b>6 mm²</b>					
1004227	1-CXKE-R 2x6 /o/-/ KERAMEX ®	1,600	10.8	181	108
1004261	1-CXKE-R 2Ax6 /b/-/ KERAMEX ®	1,600	10.8	181	108
1004828	1-CXKE-R 2Ax6 /o/-/ KERAMEX ®	1,600	10.8	181	108
1004265	1-CXKE-R 2Dx6 /o/-/ KERAMEX ®	1,600	10.8	181	108
1004225	1-CXKE-R 3x6 /o/-/ KERAMEX ®	1,700	11.6	247	162
1004188	1-CXKE-R 3Cx6 /o/-/ KERAMEX ®	1,700	11.6	247	162
1004260	1-CXKE-R 3Dx6 /b/-/ KERAMEX ®	1,700	11.6	247	162
1004224	1-CXKE-R 4x6 /o/-/ KERAMEX ®	1,700	12.5	317	216
1004238	1-CXKE-R 4Bx6 /o/-/ KERAMEX ®	1,700	12.5	317	216
1004222	1-CXKE-R 5Cx6 /o/-/ KERAMEX ®	1,700	13.7	476	270
1004182	1-CXKE-R 7x6 /o/-/ KERAMEX ®	1,600	14.9	512	378
<b>10 mm²</b>					
1004195	1-CXKE-R 2x10 /o/-/ KERAMEX ®	1,000	12.7	270	180
1004252	1-CXKE-R 2Ax10 /o/-/ KERAMEX ®	1,000	12.7	270	180
1004237	1-CXKE-R 3x10 /o/-/ KERAMEX ®	1,050	13.7	377	270
1004259	1-CXKE-R 3Cx10 /b/-/ KERAMEX ®	1,000	13.7	377	270
1004218	1-CXKE-R 4x10 /o/-/ KERAMEX ®	1,050	14.8	487	360
1004197	1-CXKE-R 4Bx10 /o/-/ KERAMEX ®	1,050	14.8	487	360
1004211	1-CXKE-R 5x10 /o/-/ KERAMEX ®	1,050	16.3	602	450
1004213	1-CXKE-R 5Cx10 /o/-/ KERAMEX ®	1,050	16.3	602	450

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CXKE-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004234	1-CXKE-R 7x10 /o/-/ KERAMEX®	1,050	17.9	803	630
<b>16 mm²</b>					
1004216	1-CXKE-R 2x16 /o/-/ KERAMEX®	3,500	14.6	393	288
1004244	1-CXKE-R 3x16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004253	1-CXKE-R 3Cx16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004226	1-CXKE-R 4x16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004230	1-CXKE-R 4Bx16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004183	1-CXKE-R 5x16 /o/-/ KERAMEX®	1,900	19.3	921	720
1004232	1-CXKE-R 5Cx16 /o/-/ KERAMEX®	1,900	19.3	921	720
1004184	1-CXKE-R 7x16 /o/-/ KERAMEX®	1,500	21.1	1,233	1,008

**dimension variants**

core cross-section in mm²	number of cores	core cross-section in mm²	number of cores	core cross-section in mm²	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654



# POWER CABLES 0,6 - 1 kV KERAMEX®

FIRE-RETARDANT

CHKE-R KERAMEX®

cables for fixed bedding

## use

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1004385	1-CHKE-R 2x0,5 /o/-/ KERAMEX ®	4,700	6.0	41	9
1004365	1-CHKE-R 2Ax0,5 /o/-/ KERAMEX ®	4,700	6.0	41	9
1004388	1-CHKE-R 3x0,5 /o/-/ KERAMEX ®	4,600	6.0	40	9
1004390	1-CHKE-R 4x0,5 /o/-/ KERAMEX ®	4,600	7.6	62	18
1004417	1-CHKE-R 5x0,5 /o/-/ KERAMEX ®	4,600	8.4	74	23
1004367	1-CHKE-R 7x0,5 /o/-/ KERAMEX ®	4,600	8.0	86	32
<b>1 mm<sup>2</sup></b>					
1004372	1-CHKE-R 2x1 /o/-/ KERAMEX ®	3,500	6.6	53	18
1004440	1-CHKE-R 2Ax1 /o/-/ KERAMEX ®	3,500	6.6	53	18
1004434	1-CHKE-R 2Dx1 /o/-/ KERAMEX ®	3,500	6.6	53	18

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CHKE-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004399	1-CHKE-R 3x1 /o/-/ KERAMEX®	3,600	7.1	68	27
1004391	1-CHKE-R 4x1 /o/-/ KERAMEX®	3,600	8.5	86	36
1004382	1-CHKE-R 5x1 /o/-/ KERAMEX®	3,600	9.0	101	45
1004412	1-CHKE-R 7x1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004436	1-CHKE-R 7Cx1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004425	1-CHKE-R 12Cx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004431	1-CHKE-R 12Dx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004433	1-CHKE-R 14Cx1 /o/-/ KERAMEX®	2,300	13.6	243	126
1004428	1-CHKE-R 19Cx1 /h/-/ KERAMEX®	2,400	14.1	307	171
1004427	1-CHKE-R 24Cx1 /o/-/ KERAMEX®	1,800	16.9	384	216
1004423	1-CHKE-R 37Cx1 /h/-/ KERAMEX®	1,300	19.1	570	333
1004424	1-CHKE-R 48Cx1 /h/-/ KERAMEX®	900	26.7	754	432
<b>1,5 mm²</b>					
1003992	1-CHKE-R 2Ax1,5 /o/-/ KERAMEX®	2,400	7.6	70	27
1004416	1-CHKE-R 3Ax1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004380	1-CHKE-R 3Bx1,5 /o/-/ KERAMEX®	2,410	8.1	90	41
1003604	1-CHKE-R 3Cx1,5 /o/-/ KERAMEX®	6,000	8.1	90	41
1004393	1-CHKE-R 3Dx1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004418	1-CHKE-R 4x1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004379	1-CHKE-R 4Bx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004370	1-CHKE-R 4Cx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1003665	1-CHKE-R 4Dx1,5 /o/-/ KERAMEX®	1,200	10.2	125	54
1004364	1-CHKE-R 5Cx1,5 /o/-/ KERAMEX®	2,400	10.4	144	68
1004400	1-CHKE-R 7x1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004378	1-CHKE-R 7Cx1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004443	1-CHKE-R 10Cx1,5 /o/-/ KERAMEX®	2,400	14.2	274	135
1004387	1-CHKE-R 12x1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004383	1-CHKE-R 12Cx1,5 /h/-/ KERAMEX®	2,400	14.1	293	162
1003664	1-CHKE-R 12Cx1,5 /o/-/ KERAMEX®	2,400	14.1	291	162
1004432	1-CHKE-R 12Dx1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004394	1-CHKE-R 19x1,5 /o/-/ KERAMEX®	2,400	16.3	432	257
1004373	1-CHKE-R 19Cx1,5 /h/-/ KERAMEX®	2,400	16.3	432	257
1004395	1-CHKE-R 24x1,5 /o/-/ KERAMEX®	1,800	20.0	560	324
1003667	1-CHKE-R 24Cx1,5 /o/-/ KERAMEX®	1,800	20.0	560	324
1004406	1-CHKE-R 37Cx1,5 /h/-/ KERAMEX®	1,300	22.3	807	500
1005496	1-CHKE-R 37Dx1,5 KERAMEX® /o/-/	1,300	22.3	807	500
1004422	1-CHKE-R 48Cx1,5 /h/-/ KERAMEX®	630	31.9	1,094	648
<b>2,5 mm²</b>					
1004410	1-CHKE-R 2x2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004435	1-CHKE-R 2Ax2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004420	1-CHKE-R 3x2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004366	1-CHKE-R 3Cx2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004419	1-CHKE-R 4x2,5 /o/-/ KERAMEX®	1,800	10.1	167	90

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CHKE-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004033	1-CHKE-R 4Bx2,5 /o/-/ KERAMEX®	1,800	10.1	167	90
1004043	1-CHKE-R 4Dx2,5 /o/-/ KERAMEX®	1,800	10.1	167	90
1004413	1-CHKE-R 5x2,5 /o/-/ KERAMEX®	1,800	11.0	203	113
1004386	1-CHKE-R 5Cx2,5 /o/-/ KERAMEX®	1,800	11.0	202	113
1004398	1-CHKE-R 7x2,5 /o/-/ KERAMEX®	1,800	11.9	259	158
1004368	1-CHKE-R 7Cx2,5 /o/-/ KERAMEX®	1,800	11.9	259	158
1004381	1-CHKE-R 12x2,5 /o/-/ KERAMEX®	1,800	15.8	421	270
1005409	1-CHKE-R 19Cx2,5 /o/-/ KERAMEX®	1,600	18.4	629	428
<b>4 mm²</b>					
1004401	1-CHKE-R 2x4 /o/-/ KERAMEX®	1,400	9.7	136	72
1004032	1-CHKE-R 2Ax4 /o/-/ KERAMEX®	1,400	9.7	136	72
1004384	1-CHKE-R 3x4 /o/-/ KERAMEX®	1,400	10.4	181	108
1004442	1-CHKE-R 3Cx4 /č/-/ KERAMEX®	1,400	10.4	181	108
1004426	1-CHKE-R 3Cx4 /o/-/ KERAMEX®	1,400	10.4	181	108
1004374	1-CHKE-R 4x4 /o/-/ KERAMEX®	1,400	11.2	232	144
1004441	1-CHKE-R 4Bx4 /h/-/ KERAMEX®	1,400	11.2	231	144
1004409	1-CHKE-R 4Bx4 /o/-/ KERAMEX®	1,400	11.2	231	144
1004389	1-CHKE-R 5x4 /o/-/ KERAMEX®	1,400	12.2	283	180
1003869	1-CHKE-R 5Cx4 /o/-/ KERAMEX®	1,400	12.2	283	180
1004407	1-CHKE-R 7x4 /o/-/ KERAMEX®	1,400	13.3	370	252
1004377	1-CHKE-R 12x4 /o/-/ KERAMEX®	1,400	17.7	605	432
<b>6 mm²</b>					
1004405	1-CHKE-R 2x6 /o/-/ KERAMEX®	1,600	10.8	181	108
1004439	1-CHKE-R 2Ax6 /b/-/ KERAMEX®	1,600	10.8	181	108
1005233	1-CHKE-R 2Ax6 /o/-/ KERAMEX®	1,600	10.8	181	108
1003661	1-CHKE-R 2Dx6 /o/-/ KERAMEX®	1,600	10.8	181	108
1004403	1-CHKE-R 3x6 /o/-/ KERAMEX®	1,700	11.6	247	162
1004369	1-CHKE-R 3Cx6 /o/-/ KERAMEX®	1,700	11.6	247	162
1004438	1-CHKE-R 3Dx6 /b/-/ KERAMEX®	1,700	11.6	247	162
1005234	1-CHKE-R 3Dx6 /o/-/ KERAMEX®	1,700	11.6	247	162
1004402	1-CHKE-R 4x6 /o/-/ KERAMEX®	1,700	12.5	317	216
1004415	1-CHKE-R 4Bx6 /o/-/ KERAMEX®	1,700	12.5	317	216
1003795	1-CHKE-R 5Cx6 /o/-/ KERAMEX®	1,700	13.7	390	270
1004361	1-CHKE-R 7x6 /o/-/ KERAMEX®	1,600	14.9	512	378
<b>10 mm²</b>					
1004376	1-CHKE-R 2x10 /o/-/ KERAMEX®	1,000	12.7	270	180
1004429	1-CHKE-R 2Ax10 /o/-/ KERAMEX®	1,000	12.7	270	180
1004414	1-CHKE-R 3x10 /o/-/ KERAMEX®	1,050	13.7	377	270
1004437	1-CHKE-R 3Cx10 /b/-/ KERAMEX®	1,000	13.7	377	270
1004397	1-CHKE-R 4x10 /o/-/ KERAMEX®	1,050	14.8	487	360
1003802	1-CHKE-R 4Bx10 /o/-/ KERAMEX®	1,050	14.8	487	360
1004392	1-CHKE-R 5x10 /o/-/ KERAMEX®	1,050	16.3	602	450
1003791	1-CHKE-R 5Cx10 /o/-/ KERAMEX®	1,050	16.3	602	450

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CHKE-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004411	1-CHKE-R 7x10 /o/-/ KERAMEX®	1,050	17.9	803	630
<b>16 mm²</b>					
1004396	1-CHKE-R 2x16 /o/-/ KERAMEX®	3,500	14.6	393	288
1004421	1-CHKE-R 3x16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004430	1-CHKE-R 3Cx16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004404	1-CHKE-R 4x16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004408	1-CHKE-R 4Bx16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004362	1-CHKE-R 5x16 /o/-/ KERAMEX®	1,900	19.3	921	720
1003794	1-CHKE-R 5Cx16 /o/-/ KERAMEX®	1,800	19.3	921	720
1004363	1-CHKE-R 7x16 /o/-/ KERAMEX®	1,500	21.1	1,233	1,008

**dimension variants**

core cross-section in mm²	number of cores	core cross-section in mm²	number of cores	core cross-section in mm²	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

# POWER CABLES 0,6 - 1 kV KERAMEX®

FIRE-RETARDANT

CXKH-R KERAMEX®

cables for fixed bedding

## use

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1004114	1-CXKH-R 2x0,5 /o/-/ KERAMEX ®	4,700	6.0	41	9
1004091	1-CXKH-R 2Ax0,5 /o/-/ KERAMEX ®	4,700	6.0	41	9
1004118	1-CXKH-R 3x0,5 /o/-/ KERAMEX ®	4,600	6.0	40	9
1004120	1-CXKH-R 4x0,5 /o/-/ KERAMEX ®	4,600	7.6	62	18
1004151	1-CXKH-R 5x0,5 /o/-/ KERAMEX ®	4,600	8.4	74	23
1004093	1-CXKH-R 7x0,5 /o/-/ KERAMEX ®	4,600	8.0	86	32
<b>1 mm<sup>2</sup></b>					
1004099	1-CXKH-R 2x1 /o/-/ KERAMEX ®	3,500	6.6	53	18
1004176	1-CXKH-R 2Ax1 /o/-/ KERAMEX ®	3,500	6.6	53	18
1004170	1-CXKH-R 2Dx1 /o/-/ KERAMEX ®	3,500	6.6	53	18

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT

cables for fixed bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004131	1-CXKH-R 3x1 /o/-/ KERAMEX®	3,600	7.1	68	27
1004121	1-CXKH-R 4x1 /o/-/ KERAMEX®	3,600	8.5	86	36
1004110	1-CXKH-R 5x1 /o/-/ KERAMEX®	3,600	9.0	101	45
1004146	1-CXKH-R 7x1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004172	1-CXKH-R 7Cx1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004161	1-CXKH-R 12Cx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004167	1-CXKH-R 12Dx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004169	1-CXKH-R 14Cx1 /o/-/ KERAMEX®	2,300	13.6	243	126
1004164	1-CXKH-R 19Cx1 /h/-/ KERAMEX®	2,400	14.1	307	171
1004163	1-CXKH-R 24Cx1 /o/-/ KERAMEX®	1,800	16.9	384	216
1004159	1-CXKH-R 37Cx1 /h/-/ KERAMEX®	1,300	19.1	570	333
1004160	1-CXKH-R 48Cx1 /h/-/ KERAMEX®	900	26.7	754	432
<b>1,5 mm²</b>					
1004095	1-CXKH-R 2Ax1,5 /o/-/ KERAMEX®	2,400	7.6	70	27
1004150	1-CXKH-R 3Ax1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004108	1-CXKH-R 3Bx1,5 /o/-/ KERAMEX®	2,410	8.1	90	41
1004117	1-CXKH-R 3Cx1,5 /o/-/ KERAMEX®	2,440	8.1	90	41
1004123	1-CXKH-R 3Dx1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004152	1-CXKH-R 4x1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004107	1-CXKH-R 4Bx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004097	1-CXKH-R 4Cx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004128	1-CXKH-R 4Dx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004090	1-CXKH-R 5Cx1,5 /o/-/ KERAMEX®	2,400	10.4	144	68
1004132	1-CXKH-R 7x1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004105	1-CXKH-R 7Cx1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004180	1-CXKH-R 10Cx1,5 /o/-/ KERAMEX®	2,400	14.2	274	135
1004116	1-CXKH-R 12x1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004111	1-CXKH-R 12Cx1,5 /h/-/ KERAMEX®	2,400	14.1	293	162
1004168	1-CXKH-R 12Dx1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004125	1-CXKH-R 19x1,5 /o/-/ KERAMEX®	2,400	16.3	432	257
1004100	1-CXKH-R 19Cx1,5 /h/-/ KERAMEX®	2,400	16.3	432	257
1004126	1-CXKH-R 24x1,5 /o/-/ KERAMEX®	1,800	20.0	560	324
1004112	1-CXKH-R 24Cx1,5 /o/-/ KERAMEX®	1,800	20.0	561	324
1004139	1-CXKH-R 37Cx1,5 /h/-/ KERAMEX®	1,300	22.3	807	500
1004158	1-CXKH-R 48Cx1,5 /h/-/ KERAMEX®	630	31.9	1,094	648
<b>2,5 mm²</b>					
1004144	1-CXKH-R 2x2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004171	1-CXKH-R 2Ax2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004155	1-CXKH-R 3x2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004092	1-CXKH-R 3Cx2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004153	1-CXKH-R 4x2,5 /o/-/ KERAMEX®	1,800	10.1	167	90
1004157	1-CXKH-R 4Bx2,5 /o/-/ KERAMEX®	1,800	10.1	167	90
1004147	1-CXKH-R 5x2,5 /o/-/ KERAMEX®	1,800	11.0	203	113



**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CXKH-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004115	1-CXKH-R 5Cx2,5 /o/-/ KERAMEX®	1,800	11.0	202	113
1004130	1-CXKH-R 7x2,5 /o/-/ KERAMEX®	1,800	11.9	259	158
1004094	1-CXKH-R 7Cx2,5 /o/-/ KERAMEX®	1,800	11.9	259	158
1004109	1-CXKH-R 12x2,5 /o/-/ KERAMEX®	1,800	15.8	421	270
<b>4 mm²</b>					
1004134	1-CXKH-R 2x4 /o/-/ KERAMEX®	1,400	9.7	136	72
1004178	1-CXKH-R 2Ax4 /o/-/ KERAMEX®	1,400	9.7	136	72
1004113	1-CXKH-R 3x4 /o/-/ KERAMEX®	1,400	10.4	181	108
1004179	1-CXKH-R 3Cx4 /č/-/ KERAMEX®	1,400	10.4	181	108
1004162	1-CXKH-R 3Cx4 /o/-/ KERAMEX®	1,400	10.4	181	108
1004101	1-CXKH-R 4x4 /o/-/ KERAMEX®	1,400	11.2	232	144
1004177	1-CXKH-R 4Bx4 /h/-/ KERAMEX®	1,400	11.2	231	144
1004142	1-CXKH-R 4Bx4 /o/-/ KERAMEX®	1,400	11.2	231	144
1004154	1-CXKH-R 5Cx4 /o/-/ KERAMEX®	1,400	12.2	282	180
1004140	1-CXKH-R 7x4 /o/-/ KERAMEX®	1,400	13.3	370	252
1004104	1-CXKH-R 12x4 /o/-/ KERAMEX®	1,400	17.7	605	432
<b>6 mm²</b>					
1004138	1-CXKH-R 2x6 /o/-/ KERAMEX®	1,600	10.8	181	108
1004175	1-CXKH-R 2Ax6 /b/-/ KERAMEX®	1,600	10.8	181	108
1004181	1-CXKH-R 2Dx6 /o/-/ KERAMEX®	1,600	10.8	181	108
1004136	1-CXKH-R 3x6 /o/-/ KERAMEX®	1,700	11.6	247	162
1004096	1-CXKH-R 3Cx6 /o/-/ KERAMEX®	1,700	11.6	247	162
1004174	1-CXKH-R 3Dx6 /b/-/ KERAMEX®	1,700	11.6	247	162
1004135	1-CXKH-R 4x6 /o/-/ KERAMEX®	1,700	12.5	317	216
1004149	1-CXKH-R 4Bx6 /o/-/ KERAMEX®	1,700	12.5	317	216
1004133	1-CXKH-R 5Cx6 /o/-/ KERAMEX®	1,700	13.7	390	270
1004087	1-CXKH-R 7x6 /o/-/ KERAMEX®	1,600	14.9	512	378
<b>10 mm²</b>					
1004165	1-CXKH-R 2Ax10 /o/-/ KERAMEX®	1,000	12.7	270	180
1004148	1-CXKH-R 3x10 /o/-/ KERAMEX®	1,050	13.7	377	270
1004173	1-CXKH-R 3Cx10 /b/-/ KERAMEX®	1,000	13.7	377	270
1004129	1-CXKH-R 4x10 /o/-/ KERAMEX®	1,050	14.8	487	360
1004106	1-CXKH-R 4Bx10 /o/-/ KERAMEX®	1,050	14.8	487	360
1004124	1-CXKH-R 5Cx10 /o/-/ KERAMEX®	1,050	16.3	602	450
1004145	1-CXKH-R 7x10 /o/-/ KERAMEX®	1,050	17.9	803	630
<b>16 mm²</b>					
1004127	1-CXKH-R 2x16 /o/-/ KERAMEX®	3,500	14.6	393	288
1004156	1-CXKH-R 3x16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004166	1-CXKH-R 3Cx16 /o/-/ KERAMEX®	2,900	15.8	556	432
1004137	1-CXKH-R 4x16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004141	1-CXKH-R 4Bx16 /o/-/ KERAMEX®	2,400	17.1	728	576
1004088	1-CXKH-R 5x16 /o/-/ KERAMEX®	1,900	19.3	921	720
1004143	1-CXKH-R 5Cx16 /o/-/ KERAMEX®	1,900	19.3	921	720

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT****CXKH-R KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004089	1-CXKH-R 7x16 /o/-/ KERAMEX®	1,500	21.1	1,233	1,008

**dimension variants**

core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores	core cross-section in mm <sup>2</sup>	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**conductor parameters**

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
 - full copper conductors with the nominal cross-section of 25 mm<sup>2</sup> and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# POWER CABLES 0,6 - 1 kV KERAMEX®

FIRE-RETARDANT

CHKH-R KERAMEX®

cables for fixed bedding

## use

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

## features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm<sup>2</sup></b>					
1004293	1-CHKH-R 2x0,5 /o/-/ KERAMEX®	4,700	6.0	41	9
1004270	1-CHKH-R 2Ax0,5 /o/-/ KERAMEX®	4,700	6.0	41	9
1004297	1-CHKH-R 3x0,5 /o/-/ KERAMEX®	4,600	6.0	40	9
1004299	1-CHKH-R 4x0,5 /o/-/ KERAMEX®	4,600	7.6	62	18
1004330	1-CHKH-R 5x0,5 /o/-/ KERAMEX®	4,600	8.4	74	23
1004272	1-CHKH-R 7x0,5 /o/-/ KERAMEX®	4,600	8.0	86	32
<b>1 mm<sup>2</sup></b>					
1004278	1-CHKH-R 2x1 /o/-/ KERAMEX®	3,500	6.6	53	18
1004355	1-CHKH-R 2Ax1 /o/-/ KERAMEX®	3,500	6.6	53	18

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT

### CHKH-R KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004349	1-CHKH-R 2Dx1 /o/-/ KERAMEX®	3,500	6.6	53	18
1004310	1-CHKH-R 3x1 /o/-/ KERAMEX®	3,600	7.1	68	27
1004300	1-CHKH-R 4x1 /o/-/ KERAMEX®	3,600	8.5	86	36
1004289	1-CHKH-R 5x1 /o/-/ KERAMEX®	3,600	9.0	101	45
1004325	1-CHKH-R 7x1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004351	1-CHKH-R 7Cx1 /o/-/ KERAMEX®	3,600	9.0	125	63
1004340	1-CHKH-R 12Cx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004346	1-CHKH-R 12Dx1 /o/-/ KERAMEX®	2,300	12.2	211	108
1004348	1-CHKH-R 14Cx1 /o/-/ KERAMEX®	2,300	13.6	243	126
1004343	1-CHKH-R 19Cx1 /h/-/ KERAMEX®	2,400	14.1	307	171
1004342	1-CHKH-R 24Cx1 /o/-/ KERAMEX®	1,800	16.9	384	216
1004338	1-CHKH-R 37Cx1 /h/-/ KERAMEX®	1,300	19.1	570	333
1004339	1-CHKH-R 48Cx1 /h/-/ KERAMEX®	900	26.7	754	432
<b>1,5 mm²</b>					
1004274	1-CHKH-R 2Ax1,5 /o/-/ KERAMEX®	2,400	7.6	70	27
1004329	1-CHKH-R 3Ax1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004287	1-CHKH-R 3Bx1,5 /o/-/ KERAMEX®	2,410	8.1	90	41
1004296	1-CHKH-R 3Cx1,5 /o/-/ KERAMEX®	2,440	8.1	90	41
1004302	1-CHKH-R 3Dx1,5 /o/-/ KERAMEX®	2,400	8.1	90	41
1004331	1-CHKH-R 4x1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004286	1-CHKH-R 4Bx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004276	1-CHKH-R 4Cx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004307	1-CHKH-R 4Dx1,5 /o/-/ KERAMEX®	2,400	10.2	125	54
1004269	1-CHKH-R 5Cx1,5 /o/-/ KERAMEX®	2,400	10.4	144	68
1004311	1-CHKH-R 7x1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004284	1-CHKH-R 7Cx1,5 /o/-/ KERAMEX®	2,400	10.7	183	95
1004359	1-CHKH-R 10Cx1,5 /o/-/ KERAMEX®	2,400	14.2	274	135
1004295	1-CHKH-R 12x1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004290	1-CHKH-R 12Cx1,5 /h/-/ KERAMEX®	2,400	14.1	293	162
1004347	1-CHKH-R 12Dx1,5 /o/-/ KERAMEX®	2,400	14.1	293	162
1004304	1-CHKH-R 19x1,5 /o/-/ KERAMEX®	2,400	16.3	432	257
1004279	1-CHKH-R 19Cx1,5 /h/-/ KERAMEX®	2,400	16.3	432	257
1004305	1-CHKH-R 24x1,5 /o/-/ KERAMEX®	1,800	20.0	560	324
1004291	1-CHKH-R 24Cx1,5 /o/-/ KERAMEX®	1,800	20.0	561	324
1004318	1-CHKH-R 37Cx1,5 /h/-/ KERAMEX®	1,300	22.3	807	500
1004337	1-CHKH-R 48Cx1,5 /h/-/ KERAMEX®	630	31.9	1,094	648
<b>2,5 mm²</b>					
1004323	1-CHKH-R 2x2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004350	1-CHKH-R 2Ax2,5 /o/-/ KERAMEX®	1,800	8.4	94	45
1004334	1-CHKH-R 3x2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004271	1-CHKH-R 3Cx2,5 /o/-/ KERAMEX®	1,800	9.0	124	68
1004332	1-CHKH-R 4x2,5 /o/-/ KERAMEX®	1,800	10.1	167	90
1004336	1-CHKH-R 4Bx2,5 /o/-/ KERAMEX®	1,800	10.1	167	90

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT

### CHKH-R KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004326	1-CHKH-R 5x2,5 /o/-/ KERAMEX ®	1,800	11.0	203	113
1004294	1-CHKH-R 5Cx2,5 /o/-/ KERAMEX ®	1,800	11.0	202	113
1004309	1-CHKH-R 7x2,5 /o/-/ KERAMEX ®	1,800	11.9	259	158
1004273	1-CHKH-R 7Cx2,5 /o/-/ KERAMEX ®	1,800	11.9	259	158
1004288	1-CHKH-R 12x2,5 /o/-/ KERAMEX ®	1,800	15.8	421	270
<b>4 mm²</b>					
1004313	1-CHKH-R 2x4 /o/-/ KERAMEX ®	1,400	9.7	136	72
1004357	1-CHKH-R 2Ax4 /o/-/ KERAMEX ®	1,400	9.7	136	72
1004292	1-CHKH-R 3x4 /o/-/ KERAMEX ®	1,400	10.4	181	108
1004358	1-CHKH-R 3Cx4 /č/-/ KERAMEX ®	1,400	10.4	181	108
1004341	1-CHKH-R 3Cx4 /o/-/ KERAMEX ®	1,400	10.4	181	108
1004280	1-CHKH-R 4x4 /o/-/ KERAMEX ®	1,400	11.2	232	144
1004356	1-CHKH-R 4Bx4 /h/-/ KERAMEX ®	1,400	11.2	231	144
1004321	1-CHKH-R 4Bx4 /o/-/ KERAMEX ®	1,400	11.2	231	144
1004298	1-CHKH-R 5x4 /o/-/ KERAMEX ®	1,400	12.2	283	180
1004333	1-CHKH-R 5Cx4 /o/-/ KERAMEX ®	1,400	12.2	282	180
1004319	1-CHKH-R 7x4 /o/-/ KERAMEX ®	1,400	13.3	370	252
1004283	1-CHKH-R 12x4 /o/-/ KERAMEX ®	1,400	17.7	605	432
<b>6 mm²</b>					
1004317	1-CHKH-R 2x6 /o/-/ KERAMEX ®	1,600	10.8	181	108
1004354	1-CHKH-R 2Ax6 /b/-/ KERAMEX ®	1,600	10.8	181	108
1004360	1-CHKH-R 2Dx6 /o/-/ KERAMEX ®	1,600	10.8	181	108
1004315	1-CHKH-R 3x6 /o/-/ KERAMEX ®	1,700	11.6	247	162
1004275	1-CHKH-R 3Cx6 /o/-/ KERAMEX ®	1,700	11.6	247	162
1004353	1-CHKH-R 3Dx6 /b/-/ KERAMEX ®	1,700	11.6	247	162
1004314	1-CHKH-R 4x6 /o/-/ KERAMEX ®	1,700	12.5	317	216
1004328	1-CHKH-R 4Bx6 /o/-/ KERAMEX ®	1,700	12.5	317	216
1004312	1-CHKH-R 5Cx6 /o/-/ KERAMEX ®	1,700	13.7	390	270
1004266	1-CHKH-R 7x6 /o/-/ KERAMEX ®	1,600	14.9	512	378

#### dimension variants

core cross-section in mm²	number of cores	core cross-section in mm²	number of cores	core cross-section in mm²	number of cores
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CXKE-V KERAMEX®**

cables for fixed bedding

**use**

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

**features**

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>1 mm<sup>2</sup></b>					
1004605	1-CXKE-V 2x1 /b/-/ KERAMEX ®	2,600	7.4	61	18
1004572	1-CXKE-V 2Ax1 /o/-/ KERAMEX ®	1,800	7.4	61	18
1005419	1-CXKE-V 2Dx1 /h/-/ KERAMEX ®	1,800	7.4	61	18
1004545	1-CXKE-V 2Dx1 /o/-/ KERAMEX ®	1,800	7.4	61	18
1004620	1-CXKE-V 3Ax1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004560	1-CXKE-V 3Cx1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004621	1-CXKE-V 3Dx1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004577	1-CXKE-V 4x1 /b/-/ KERAMEX ®	2,600	10.0	108	36
1004580	1-CXKE-V 4Ax1 /o/-/ KERAMEX ®	2,600	10.0	108	36
1005420	1-CXKE-V 4Cx1 /h/-/ KERAMEX ®	2,600	10.0	108	36



**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CXKE-V KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004584	1-CXKE-V 4Dx1 /č/-/ KERAMEX ®	2,600	10.0	110	36
1004550	1-CXKE-V 5x1 /b/-/ KERAMEX ®	2,600	9.8	113	45
1004569	1-CXKE-V 7x1 /b/-/ KERAMEX ®	2,600	10.6	154	63
1004554	1-CXKE-V 12x1 /o/-/ KERAMEX ®	2,600	13.8	243	108
1003852	1-CXKE-V 12Cx1 /o/-/ KERAMEX ®	2,600	13.8	243	108
1004566	1-CXKE-V 12Cx1 /o/-/ KERAMEX ®	2,600	13.8	243	108
<b>1,5 mm²</b>					
1004625	1-CXKE-V 2Ax1,5 /h/-/ KERAMEX ®	1,800	8.4	78	27
1003625	1-CXKE-V 2Ax1,5 /o/-/ KERAMEX ®	6,000	8.4	78	27
1004600	1-CXKE-V 2Dx1,5 /b/-/ KERAMEX ®	6,000	8.4	79	27
1005418	1-CXKE-V 2Dx1,5 /h/-/ KERAMEX ®	6,000	8.4	78	27
1003906	1-CXKE-V 2Dx1,5 /r/-/ KERAMEX ®	6,000	8.4	78	27
1004540	1-CXKE-V 3x1,5 /h/-/ KERAMEX ®	1,800	9.0	101	41
1004582	1-CXKE-V 3Ax1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004587	1-CXKE-V 3Bx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004583	1-CXKE-V 3Cx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1003606	1-CXKE-V 3Cx1,5 /o/-/ KERAMEX ®	6,000	9.0	100	41
1004579	1-CXKE-V 3Dx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004606	1-CXKE-V 4x1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004623	1-CXKE-V 4x1,5 /o/-/ KERAMEX ®	1,300	12.6	213	54
1004624	1-CXKE-V 4Bx1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004559	1-CXKE-V 4Bx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1003975	1-CXKE-V 4Cx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004619	1-CXKE-V 4Dx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004603	1-CXKE-V 5x1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1004574	1-CXKE-V 5x1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004586	1-CXKE-V 5Cx1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1003841	1-CXKE-V 5Cx1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004618	1-CXKE-V 5Dx1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1003900	1-CXKE-V 7Cx1,5 /o/-/ KERAMEX ®	1,800	11.9	205	95
1004599	1-CXKE-V 7Dx1,5 /o/-/ KERAMEX ®	1,800	11.9	204	95
1004567	1-CXKE-V 12Cx1,5 /o/-/ KERAMEX ®	1,800	15.8	327	162
1004564	1-CXKE-V 12x1,5 /h/-/ KERAMEX ®	1,800	15.8	327	162
1004558	1-CXKE-V 19x1,5 /h/-/ KERAMEX ®	1,800	18.3	481	257
1004617	1-CXKE-V 19Cx1,5 /o/-/ KERAMEX ®	1,800	18.3	480	257
1004588	1-CXKE-V 24Cx1,5 /o/-/ KERAMEX ®	1,200	22.5	626	324
1004563	1-CXKE-V 37Cx1,5 /h/-/ KERAMEX ®	1,000	25.1	901	500
<b>2,5 mm²</b>					
1004570	1-CXKE-V 2Ax2,5 /h/-/ KERAMEX ®	1,800	9.6	111	45
1003762	1-CXKE-V 2Ax2,5 /o/-/ KERAMEX ®	1,400	9.6	111	45
1004593	1-CXKE-V 2Dx2,5 /b/-/ KERAMEX ®	1,400	9.6	111	45
1003761	1-CXKE-V 2Dx2,5 /o/-/ KERAMEX ®	1,400	9.6	111	45
1004571	1-CXKE-V 3x2,5 /h/-/ KERAMEX ®	1,400	10.3	145	68

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CXKE-V KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004607	1-CXKE-V 3Bx2,5 /č/-/ KERAMEX®	1,400	10.3	144	68
1004592	1-CXKE-V 3Cx2,5 /h/-/ KERAMEX®	1,400	10.3	144	68
1003607	1-CXKE-V 3Cx2,5 /o/-/ KERAMEX®	4,500	10.3	144	68
1004539	1-CXKE-V 4x2,5 /h/-/ KERAMEX®	1,400	11.0	182	90
1003805	1-CXKE-V 4Bx2,5 /o/-/ KERAMEX®	1,400	11.0	182	90
1003901	1-CXKE-V 4Cx2,5 /o/-/ KERAMEX®	1,400	11.0	182	90
1004541	1-CXKE-V 5x2,5 /h/-/ KERAMEX®	1,400	12.1	221	113
1004601	1-CXKE-V 5x2,5 /o/-/ KERAMEX®	1,400	12.1	221	113
1004616	1-CXKE-V 5Cx2,5 /h/-/ KERAMEX®	1,400	12.1	220	113
1003842	1-CXKE-V 5Cx2,5 /o/-/ KERAMEX®	1,400	12.1	220	113
1004596	1-CXKE-V 7x2,5 /b/-/ KERAMEX®	1,400	13.2	283	158
1004565	1-CXKE-V 7Cx2,5 /h/-/ KERAMEX®	1,400	13.2	283	158
1004608	1-CXKE-V 12x2,5 /h/-/ KERAMEX®	1,400	17.4	458	270
1004576	1-CXKE-V 24Cx2,5 /o/-/ KERAMEX®	1,000	25.0	883	540
1004626	1-CXKE-V 37Cx2,5 /h/-/ KERAMEX®	750	27.9	1,294	833
<b>4 mm²</b>					
1004547	1-CXKE-V 2Ax4 /o/-/ KERAMEX®	1,100	10.5	146	72
1004609	1-CXKE-V 3x4 /h/-/ KERAMEX®	1,130	11.3	195	108
1004602	1-CXKE-V 3Bx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1004557	1-CXKE-V 3Cx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1003671	1-CXKE-V 3Cx4 /o/-/ KERAMEX®	1,130	10.4	181	108
1004589	1-CXKE-V 4Bx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1003902	1-CXKE-V 4Bx4 /o/-/ KERAMEX®	1,100	12.2	248	144
1004552	1-CXKE-V 4Bx6 /o/-/ KERAMEX®	1,400	13.5	336	216
1004581	1-CXKE-V 4Dx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1004578	1-CXKE-V 5x4 /h/-/ KERAMEX®	1,100	13.3	305	180
1005039	1-CXKE-V 5x4 /o/-/ KERAMEX®	1,100	13.3	305	180
1004614	1-CXKE-V 5Cx4 /h/-/ KERAMEX®	1,100	13.3	305	180
1004575	1-CXKE-V 7x4 /b/-/ KERAMEX®	1,100	14.6	395	252
1004544	1-CXKE-V 7Cx4 /h/-/ KERAMEX®	1,100	14.6	395	252
1004597	1-CXKE-V 12x4 /h/-/ KERAMEX®	1,100	19.8	666	432
<b>6 mm²</b>					
1004548	1-CXKE-V 3x6 /h/-/ KERAMEX®	1,400	12.5	261	162
1004553	1-CXKE-V 2Ax6 /h/-/ KERAMEX®	1,300	11.6	191	108
1004613	1-CXKE-V 3Cx6 /o/-/ KERAMEX®	1,400	12.5	261	162
1004594	1-CXKE-V 4x6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004612	1-CXKE-V 4Dx6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004573	1-CXKE-V 5x6 /h/-/ KERAMEX®	1,400	14.8	412	270
1004611	1-CXKE-V 5Cx6 /h/-/ KERAMEX®	1,400	14.8	412	270
1003923	1-CXKE-V 5Cx6 /o/-/ KERAMEX®	1,400	14.8	412	270
1004551	1-CXKE-V 7x6 /b/-/ KERAMEX®	1,350	16.2	542	378
<b>10 mm²</b>					
1004561	1-CXKE-V 2x10 /h/-/ KERAMEX®	900	13.5	282	180

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CXKE-V KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004591	1-CXKE-V 3x10 /h/-/ KERAMEX ®	900	14.6	393	270
1004555	1-CXKE-V 3Cx10 /h/-/ KERAMEX ®	900	14.6	393	270
1004598	1-CXKE-V 4x10 /o/-/ KERAMEX ®	1,000	15.8	508	360
1004543	1-CXKE-V 4x10 /h/-/ KERAMEX ®	900	15.8	508	360
1004542	1-CXKE-V 4Bx10 /h/-/ KERAMEX ®	900	15.8	508	360
1004556	1-CXKE-V 4Dx10 /h/-/ KERAMEX ®	900	15.8	508	360
1004610	1-CXKE-V 5x10 /h/-/ KERAMEX ®	900	17.4	629	450
1004549	1-CXKE-V 5Cx10 /h/-/ KERAMEX ®	900	17.4	629	450
1003924	1-CXKE-V 5Cx10 /o/-/ KERAMEX ®	900	17.4	629	450
1004615	1-CXKE-V 7x10 /b/-/ KERAMEX ®	900	19.5	853	630
<b>16 mm²</b>					
1004590	1-CXKE-V 2x16 /h/-/ KERAMEX ®	3,100	15.4	406	288
1004546	1-CXKE-V 3x16 /h/-/ KERAMEX ®	2,500	16.7	574	432
1004622	1-CXKE-V 3x16 /o/-/ KERAMEX ®	700	16.7	574	432
1004568	1-CXKE-V 4x16 /h/-/ KERAMEX ®	2,100	18.1	749	576
1004562	1-CXKE-V 4Bx16 /o/-/ KERAMEX ®	2,100	18.1	749	576
1004585	1-CXKE-V 5x16 /h/-/ KERAMEX ®	1,600	20.4	951	720
1005430	1-CXKE-V 5Cx16 /h/-/ KERAMEX ®	1,600	20.4	951	720
1004595	1-CXKE-V 5Cx16 /o/-/ KERAMEX ®	1,600	20.4	951	720
1004604	1-CXKE-V 7x16 /b/-/ KERAMEX ®	1,300	22.3	1,271	1,008

#### dimension variants

core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

POWER CABLES 0,6 - 1 kV KERAMEX®

FIRE-RETARDANT AND FIRE-PROOF

CHKE-V KERAMEX®

cables for fixed bedding

use

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

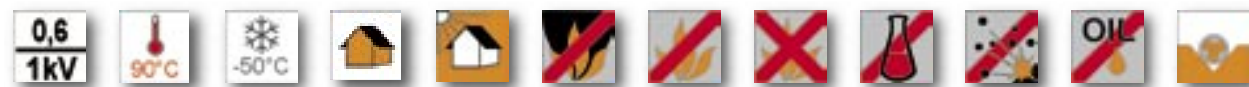
features

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order. Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1 mm²					
1004786	1-CHKE-V 2x1 /b/-/ KERAMEX ®	2,600	7.4	61	18
1004754	1-CHKE-V 2Ax1 /o/-/ KERAMEX ®	1,800	7.4	61	18
1004728	1-CHKE-V 2Dx1 /o/-/ KERAMEX ®	1,800	7.4	61	18
1004799	1-CHKE-V 3Ax1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004743	1-CHKE-V 3Cx1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004800	1-CHKE-V 3Dx1 /o/-/ KERAMEX ®	2,500	8.0	78	27
1004759	1-CHKE-V 4x1 /b/-/ KERAMEX ®	2,600	10.0	108	36
1004762	1-CHKE-V 4Ax1 /o/-/ KERAMEX ®	2,600	10.0	108	36
1004767	1-CHKE-V 4Dx1 /č/-/ KERAMEX ®	2,600	10.0	110	36
1004733	1-CHKE-V 5x1 /b/-/ KERAMEX ®	2,600	9.8	113	45

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CHKE-V KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004751	1-CHKE-V 7x1 /b/-/ KERAMEX®	2,600	10.6	154	63
1004737	1-CHKE-V 12x1 KERAMEX®	2,600	13.8	243	108
1004749	1-CHKE-V 12Cx1 /o/-/ KERAMEX®	2,600	13.8	243	108
<b>1,5 mm²</b>					
1004804	1-CHKE-V 2Ax1,5 /h/-/ KERAMEX®	1,800	8.4	78	27
1003669	1-CHKE-V 2Ax1,5 /o/-/ KERAMEX®	1,800	8.4	78	27
1004781	1-CHKE-V 2Dx1,5 /b/-/ KERAMEX®	6,000	8.4	79	27
1004723	1-CHKE-V 3x1,5 /h/-/ KERAMEX®	1,800	9.0	101	41
1004764	1-CHKE-V 3Ax1,5 /h/-/ KERAMEX®	1,800	9.0	100	41
1003824	1-CHKE-V 3Ax1,5 /o/-/ KERAMEX®	1,800	9.0	100	41
1004770	1-CHKE-V 3Bx1,5 /h/-/ KERAMEX®	1,800	9.0	100	41
1005050	1-CHKE-V 3Bx1,5 /o/-/ KERAMEX®	1,800	9.0	100	41
1004765	1-CHKE-V 3Cx1,5 /h/-/ KERAMEX®	1,800	9.0	100	41
1003670	1-CHKE-V 3Cx1,5 /o/-/ KERAMEX®	1,800	9.0	100	41
1003965	1-CHKE-V 3Cx1,5 /r/-/ KERAMEX®	2,400	9.0	100	41
1004761	1-CHKE-V 3Dx1,5 /h/-/ KERAMEX®	1,800	9.0	100	41
1003612	1-CHKE-V 3Dx1,5 /o/-/ KERAMEX®	1,800	9.0	100	41
1004787	1-CHKE-V 4x1,5 /h/-/ KERAMEX®	1,800	11.3	140	54
1004802	1-CHKE-V 4x1,5 /o/-/ KERAMEX®	1,300	12.6	213	54
1004803	1-CHKE-V 4Bx1,5 /h/-/ KERAMEX®	1,800	11.3	140	54
1004742	1-CHKE-V 4Bx1,5 /o/-/ KERAMEX®	1,800	11.3	140	54
1004766	1-CHKE-V 4Cx1,5 /o/-/ KERAMEX®	1,800	11.3	140	54
1003668	1-CHKE-V 4Dx1,5 /o/-/ KERAMEX®	1,800	11.3	140	54
1004784	1-CHKE-V 5x1,5 /h/-/ KERAMEX®	1,800	11.2	160	68
1004756	1-CHKE-V 5x1,5 /o/-/ KERAMEX®	1,800	11.2	156	68
1004769	1-CHKE-V 5Cx1,5 /h/-/ KERAMEX®	1,800	11.2	160	68
1003758	1-CHKE-V 5Cx1,5 /o/-/ KERAMEX®	1,800	11.2	160	68
1004798	1-CHKE-V 5Dx1,5 /o/-/ KERAMEX®	1,800	11.2	160	68
1003823	1-CHKE-V 7Cx1,5 /o/-/ KERAMEX®	1,800	11.9	205	95
1003831	1-CHKE-V 7Dx1,5 /o/-/ KERAMEX®	1,800	11.9	204	95
1004747	1-CHKE-V 12x1,5 /h/-/ KERAMEX®	1,800	15.8	327	162
1003666	1-CHKE-V 12Cx1,5 /o/-/ KERAMEX®	1,800	15.8	654	162
1004741	1-CHKE-V 19x1,5 /h/-/ KERAMEX®	1,800	18.3	481	257
1004797	1-CHKE-V 19Cx1,5 /o/-/ KERAMEX®	1,800	18.3	480	257
1004771	1-CHKE-V 24Cx1,5 /o/-/ KERAMEX®	1,200	22.5	626	324
1004746	1-CHKE-V 37Cx1,5 /h/-/ KERAMEX®	1,000	25.1	901	500
<b>2,5 mm²</b>					
1004752	1-CHKE-V 2Ax2,5 /h/-/ KERAMEX®	1,800	9.6	111	45
1003991	1-CHKE-V 2Ax2,5 /o/-/ KERAMEX®	1,800	9.6	111	45
1004776	1-CHKE-V 2Dx2,5 /b/-/ KERAMEX®	1,400	9.6	111	45
1004753	1-CHKE-V 3x2,5 /h/-/ KERAMEX®	1,400	10.3	145	68
1004788	1-CHKE-V 3Bx2,5 /č/-/ KERAMEX®	1,400	10.3	144	68
1004775	1-CHKE-V 3Cx2,5 /h/-/ KERAMEX®	1,400	10.3	144	68

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CHKE-V KERAMEX®**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003796	1-CHKE-V 3Cx2,5 /o/-/ KERAMEX®	1,400	10.3	144	68
1004837	1-CHKE-V (J) 3x2,5 /h/-/ KERAMEX®	1,400	9.0	124	68
1004722	1-CHKE-V 4x2,5 /h/-/ KERAMEX®	1,400	11.0	182	90
1003830	1-CHKE-V 4Bx2,5 /o/-/ KERAMEX®	1,400	11.0	182	90
1004805	1-CHKE-V 4Cx2,5 /o/-/ KERAMEX®	1,400	11.0	182	90
1004724	1-CHKE-V 5x2,5 /h/-/ KERAMEX®	1,400	12.1	221	113
1004782	1-CHKE-V 5x2,5 /o/-/ KERAMEX®	1,400	12.1	221	113
1004796	1-CHKE-V 5Cx2,5 /h/-/ KERAMEX®	1,400	12.1	220	113
1003792	1-CHKE-V 5Cx2,5 /o/-/ KERAMEX®	1,400	12.1	220	113
1004778	1-CHKE-V 7x2,5 /b/-/ KERAMEX®	1,400	13.2	283	158
1004748	1-CHKE-V 7Cx2,5 /h/-/ KERAMEX®	1,400	13.2	283	158
1003801	1-CHKE-V 7Cx2,5 /o/-/ KERAMEX®	1,400	13.2	283	158
1004789	1-CHKE-V 12x2,5 /h/-/ KERAMEX®	1,400	17.4	458	270
1004758	1-CHKE-V 24Cx2,5 /o/-/ KERAMEX®	1,000	25.0	883	540
1004806	1-CHKE-V 37Cx2,5 /h/-/ KERAMEX®	750	27.9	1,294	833
<b>4 mm²</b>					
1004730	1-CHKE-V 2Ax4 /o/-/ KERAMEX®	1,100	10.5	146	72
1004790	1-CHKE-V 3x4 /h/-/ KERAMEX®	1,130	11.3	195	108
1004740	1-CHKE-V 3Cx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1003870	1-CHKE-V 3Cx4 /o/-/ KERAMEX®	1,130	11.3	195	108
1004783	1-CHKE-V 3Bx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1004772	1-CHKE-V 4Bx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1004763	1-CHKE-V 4Dx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1004794	1-CHKE-V 5Cx4 /h/-/ KERAMEX®	1,100	13.3	305	180
1003799	1-CHKE-V 5Cx4 /o/-/ KERAMEX®	1,100	13.3	305	180
1004760	1-CHKE-V 5x4 /h/-/ KERAMEX®	1,100	13.3	305	180
1004836	1-CHKE-V (J) 5x4 /h/-/ KERAMEX®	1,400	13.3	305	180
1004757	1-CHKE-V 7x4 /b/-/ KERAMEX®	1,100	14.6	395	252
1004727	1-CHKE-V 7Cx4 /h/-/ KERAMEX®	1,100	14.6	395	252
1004830	1-CHKE-V (J) 7x4 /h/-/ KERAMEX®	1,100	14.6	395	252
1004779	1-CHKE-V 12x4 /h/-/ KERAMEX®	1,100	19.8	666	432
<b>6 mm²</b>					
1004736	1-CHKE-V 2Ax6 /h/-/ KERAMEX®	1,300	11.6	191	108
1004731	1-CHKE-V 3x6 /h/-/ KERAMEX®	1,400	12.5	261	162
1003803	1-CHKE-V 3Cx6 /o/-/ KERAMEX®	1,400	12.5	261	162
1004777	1-CHKE-V 4x6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004735	1-CHKE-V 4Bx6 /o/-/ KERAMEX®	1,400	13.5	336	216
1004793	1-CHKE-V 4Dx6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004755	1-CHKE-V 5x6 /h/-/ KERAMEX®	1,400	14.8	412	270
1004792	1-CHKE-V 5Cx6 /h/-/ KERAMEX®	1,400	14.8	412	270
1003800	1-CHKE-V 5Cx6 /o/-/ KERAMEX®	1,400	14.8	412	270
1004734	1-CHKE-V 7x6 /b/-/ KERAMEX®	1,350	16.2	542	378



# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CHKE-V KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>10 mm²</b>					
1004744	1-CHKE-V 2x10 /h/-/ KERAMEX ®	900	13.5	282	180
1004774	1-CHKE-V 3x10 /h/-/ KERAMEX ®	900	14.6	393	270
1004738	1-CHKE-V 3Cx10 /h/-/ KERAMEX ®	900	14.6	393	270
1003804	1-CHKE-V 3Cx10 /o/-/ KERAMEX ®	900	4.0	393	270
1004726	1-CHKE-V 4x10 /h/-/ KERAMEX ®	900	15.8	508	360
1004780	1-CHKE-V 4x10 /o/-/ KERAMEX ®	1,000	15.8	508	360
1004725	1-CHKE-V 4Bx10 /h/-/ KERAMEX ®	900	15.8	508	360
1004739	1-CHKE-V 4Dx10 /h/-/ KERAMEX ®	900	15.8	508	360
1004791	1-CHKE-V 5x10 /h/-/ KERAMEX ®	900	17.4	629	450
1004732	1-CHKE-V 5Cx10 /h/-/ KERAMEX ®	900	17.4	629	450
1003797	1-CHKE-V 5Cx10 /o/-/ KERAMEX ®	900	17.4	629	450
1004795	1-CHKE-V 7x10 /b/-/ KERAMEX ®	900	19.5	853	630
<b>16 mm²</b>					
1004773	1-CHKE-V 2x16 /h/-/ KERAMEX ®	3,100	15.4	406	288
1004729	1-CHKE-V 3x16 /h/-/ KERAMEX ®	2,500	16.7	574	432
1004801	1-CHKE-V 3x16 /o/-/ KERAMEX ®	700	16.7	574	432
1004750	1-CHKE-V 4x16 /h/-/ KERAMEX ®	2,100	18.1	749	576
1004745	1-CHKE-V 4Bx16 /o/-/ KERAMEX ®	2,100	18.1	749	576
1004768	1-CHKE-V 5x16 /h/-/ KERAMEX ®	1,600	20.4	951	720
1003798	1-CHKE-V 5Cx16 /o/-/ KERAMEX ®	1,600	20.4	951	720
1004785	1-CHKE-V 7x16 /b/-/ KERAMEX ®	1,300	22.3	1,271	1,008

#### dimension variants

core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CXKH-V KERAMEX®**

cables for fixed bedding

**use**

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

**features**

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>1 mm<sup>2</sup></b>					
1004515	1-CXKH-V 2x1 /b/-/ KERAMEX®	2,600	7.4	61	18
1004478	1-CXKH-V 2Ax1 /o/-/ KERAMEX®	1,800	7.4	61	18
1004450	1-CXKH-V 2Dx1 /o/-/ KERAMEX®	1,800	7.4	61	18
1004531	1-CXKH-V 3Dx1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004530	1-CXKH-V 3Ax1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004466	1-CXKH-V 3Cx1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004484	1-CXKH-V 4x1 /b/-/ KERAMEX®	2,600	10.0	108	36
1004487	1-CXKH-V 4Ax1 /o/-/ KERAMEX®	2,600	10.0	108	36
1004492	1-CXKH-V 4Dx1 /č/-/ KERAMEX®	2,600	10.0	110	36
1004455	1-CXKH-V 5x1 /b/-/ KERAMEX®	2,600	9.8	113	45

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CXKH-V KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004475	1-CXKH-V 7x1 /b/-/ KERAMEX ®	2,600	10.6	154	63
1004460	1-CXKH-V 12x1 KERAMEX ®	2,600	13.8	243	108
1004472	1-CXKH-V 12Cx1 /o/-/ KERAMEX ®	2,600	13.8	243	108
<b>1,5 mm²</b>					
1004535	1-CXKH-V 2Ax1,5 /h/-/ KERAMEX ®	1,800	8.4	78	27
1004457	1-CXKH-V 2Ax1,5 /o/-/ KERAMEX ®	1,800	8.4	78	27
1004510	1-CXKH-V 2Dx1,5 /b/-/ KERAMEX ®	6,000	8.4	79	27
1004445	1-CXKH-V 3x1,5 /h/-/ KERAMEX ®	1,800	9.0	101	41
1004489	1-CXKH-V 3Ax1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004496	1-CXKH-V 3Bx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004490	1-CXKH-V 3Cx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004479	1-CXKH-V 3Cx1,5 /o/-/ KERAMEX ®	6,000	9.0	100	41
1004486	1-CXKH-V 3Dx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004516	1-CXKH-V 4x1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004533	1-CXKH-V 4x1,5 /o/-/ KERAMEX ®	1,300	12.6	213	54
1004534	1-CXKH-V 4Bx1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004465	1-CXKH-V 4Bx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004491	1-CXKH-V 4Cx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004529	1-CXKH-V 4Dx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004513	1-CXKH-V 5x1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1004481	1-CXKH-V 5x1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004495	1-CXKH-V 5Cx1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1004528	1-CXKH-V 5Dx1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004497	1-CXKH-V 7Cx1,5 /o/-/ KERAMEX ®	1,800	11.9	205	95
1004509	1-CXKH-V 7Dx1,5 /o/-/ KERAMEX ®	1,800	11.9	204	95
1004470	1-CXKH-V 12x1,5 /h/-/ KERAMEX ®	1,800	15.8	327	162
1004473	1-CXKH-V 12Cx1,5 /o/-/ KERAMEX ®	1,800	15.8	327	162
1004464	1-CXKH-V 19x1,5 /h/-/ KERAMEX ®	1,800	18.3	481	257
1004527	1-CXKH-V 19Cx1,5 /o/-/ KERAMEX ®	1,800	18.3	480	257
1004498	1-CXKH-V 24Cx1,5 /o/-/ KERAMEX ®	1,200	22.5	626	324
1004469	1-CXKH-V 37Cx1,5 /h/-/ KERAMEX ®	1,000	25.1	901	500
<b>2,5 mm²</b>					
1004476	1-CXKH-V 2Ax2,5 /h/-/ KERAMEX ®	1,800	9.6	111	45
1004537	1-CXKH-V 2Ax2,5 /o/-/ KERAMEX ®	2,200	9.6	111	45
1004503	1-CXKH-V 2Dx2,5 /b/-/ KERAMEX ®	1,400	9.6	111	45
1004477	1-CXKH-V 3x2,5 /h/-/ KERAMEX ®	1,400	10.3	145	68
1004517	1-CXKH-V 3Bx2,5 /č/-/ KERAMEX ®	1,400	10.3	144	68
1004502	1-CXKH-V 3Cx2,5 /h/-/ KERAMEX ®	1,400	10.3	144	68
1004444	1-CXKH-V 4x2,5 /h/-/ KERAMEX ®	1,400	11.0	182	90
1004494	1-CXKH-V 4Bx2,5 /o/-/ KERAMEX ®	1,400	11.0	182	90
1004536	1-CXKH-V 4Cx2,5 /o/-/ KERAMEX ®	1,400	11.0	182	90
1004446	1-CXKH-V 5x2,5 /h/-/ KERAMEX ®	1,400	12.1	221	113
1004511	1-CXKH-V 5x2,5 /o/-/ KERAMEX ®	1,400	12.1	221	113

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CXKH-V KERAMEX®

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004526	1-CXKH-V 5Cx2,5 /h/-/ KERAMEX®	1,400	12.1	220	113
1004506	1-CXKH-V 7x2,5 /b/-/ KERAMEX®	1,400	13.2	283	158
1004471	1-CXKH-V 7Cx2,5 /h/-/ KERAMEX®	1,400	13.2	283	158
1004518	1-CXKH-V 12x2,5 /h/-/ KERAMEX®	1,400	17.4	458	270
1004483	1-CXKH-V 24Cx2,5 /o/-/ KERAMEX®	1,000	25.0	883	540
1004538	1-CXKH-V 37Cx2,5 /h/-/ KERAMEX®	750	27.9	1,294	833
<b>4 mm²</b>					
1004452	1-CXKH-V 2Ax4 /o/-/ KERAMEX®	1,100	10.5	146	72
1004519	1-CXKH-V 3x4 /h/-/ KERAMEX®	1,130	11.3	195	108
1004512	1-CXKH-V 3Bx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1004463	1-CXKH-V 3Cx4 /h/-/ KERAMEX®	1,130	11.3	197	108
1004499	1-CXKH-V 4Bx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1004488	1-CXKH-V 4Dx4 /h/-/ KERAMEX®	1,100	12.2	248	144
1004485	1-CXKH-V 5x4 /h/-/ KERAMEX®	1,100	13.3	305	180
1004524	1-CXKH-V 5Cx4 /h/-/ KERAMEX®	1,100	13.3	305	180
1004482	1-CXKH-V 7x4 /b/-/ KERAMEX®	1,100	14.6	395	252
1004449	1-CXKH-V 7Cx4 /h/-/ KERAMEX®	1,100	14.6	395	252
1004507	1-CXKH-V 12x4 /h/-/ KERAMEX®	1,100	19.8	666	432
<b>6 mm²</b>					
1004459	1-CXKH-V 2Ax6 /h/-/ KERAMEX®	1,300	11.6	191	108
1004453	1-CXKH-V 3x6 /h/-/ KERAMEX®	1,400	12.5	261	162
1004523	1-CXKH-V 3Cx6 /o/-/ KERAMEX®	1,400	12.5	261	162
1004504	1-CXKH-V 4x6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004458	1-CXKH-V 4Bx6 /o/-/ KERAMEX®	1,400	13.5	336	216
1004522	1-CXKH-V 4Dx6 /h/-/ KERAMEX®	1,400	13.5	336	216
1004480	1-CXKH-V 5x6 /h/-/ KERAMEX®	1,400	14.8	412	270
1004521	1-CXKH-V 5Cx6 /h/-/ KERAMEX®	1,400	14.8	412	270
1004456	1-CXKH-V 7x6 /b/-/ KERAMEX®	1,350	16.2	542	378
<b>10 mm²</b>					
1004467	1-CXKH-V 2x10 /h/-/ KERAMEX®	900	13.5	282	180
1004501	1-CXKH-V 3x10 /h/-/ KERAMEX®	900	14.6	393	270
1004461	1-CXKH-V 3Cx10 /h/-/ KERAMEX®	900	14.6	393	270
1004448	1-CXKH-V 4x10 /h/-/ KERAMEX®	900	15.8	508	360
1004508	1-CXKH-V 4x10 /o/-/ KERAMEX®	1,000	15.8	508	360
1004447	1-CXKH-V 4Bx10 /h/-/ KERAMEX®	900	15.8	508	360
1004462	1-CXKH-V 4Dx10 /h/-/ KERAMEX®	900	15.8	508	360
1004520	1-CXKH-V 5x10 /h/-/ KERAMEX®	900	17.4	629	450
1004454	1-CXKH-V 5Cx10 /h/-/ KERAMEX®	900	17.4	629	450
1004525	1-CXKH-V 7x10 /b/-/ KERAMEX®	900	19.5	853	630
<b>16 mm²</b>					
1004500	1-CXKH-V 2x16 /h/-/ KERAMEX®	3,100	15.4	406	288
1004451	1-CXKH-V 3x16 /h/-/ KERAMEX®	2,500	16.7	574	432
1004532	1-CXKH-V 3x16 /o/-/ KERAMEX®	700	16.7	574	432

# POWER CABLES 0,6 - 1 kV KERAMEX®

## FIRE-RETARDANT AND FIRE-PROOF

### CXKH-V KERAMEX®

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004474	1-CXKH-V 4x16 /h/-/ KERAMEX®	2,100	18.1	749	576
1004468	1-CXKH-V 4Bx16 /o/-/ KERAMEX®	2,100	18.1	749	576
1004493	1-CXKH-V 5x16 /h/-/ KERAMEX®	1,600	20.4	951	720
1004505	1-CXKH-V 5Cx16 /o/-/ KERAMEX®	1,600	20.4	951	720
1004514	1-CXKH-V 7x16 /b/-/ KERAMEX®	1,300	22.3	1,271	1,008

## dimension variants

core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl	core cross-section in mm <sup>2</sup>	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

## conductor parameters

conductor parameters		for Cu conductors			for CuSn conductors		
conductor diameter mm	conductor cross-section mm²	maximum conductor resistance at 20°C Ohm/km					
		třída 1	třída 2	třída 5	třída 1	třída 2	třída 5
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21
2,24	4	4,61	4,61	4,95	4,7	4,7	5,09
2,78	6	3,08	3,08	3,3	3,11	3,11	3,39
3,55	10	1,83	1,83	1,91	1,84	1,84	1,95
4,5	16	1,15	1,15	1,21	1,16	1,16	1,24
	25	-	0,727	0,78	-	0,734	0,795
	35	-	0,524	0,554	-	0,529	0,565
	50	-	0,387	0,386	-	0,391	0,393
	70	-	0,268	0,272	-	0,270	0,277
	95	-	0,193	0,206	-	0,0,195	0,210
	120	-	0,153	0,161	-	0,154	0,164
	150	-	0,124	0,129	-	0,126	0,132
	185	-	0,0991	0,106	-	0,100	0,108
	240	-	0,0754	0,0801	-	0,0762	0,0817
	300	-	0,0601	0,0641	-	0,0607	0,0654

- class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper  
 - full copper conductors with the nominal cross-section of 25 mm<sup>2</sup> and more, listed in the chart, are designed for special types of cables, not for normal use
- class 2 - stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter
- class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CHKH-V KERAMEX-V**

cables for fixed bedding

**use**

KERAMEX® cables are designed for common installations. For their fire-breaking features and especially for their halogen-free composition, these fire non-effusing cables are designed mainly for use in places with higher threat of fire and for premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

**features**

- cables with PE conductor insulation and HFFR jacket
- max. permitted core temperature is 90 °C
- min. bending semi-diameter generally 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C following agreement with the producer
- colour conductor marking according to ČSN 330 166 ed.2:2002 or ČSN 33 0165 or by marking according to order.

Standard cable delivery in orange and brown or according to order.  
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>1 mm<sup>2</sup></b>					
1004698	1-CHKH-V 2x1 /b/-/ KERAMEX®	2,600	7.4	61	18
1004661	1-CHKH-V 2Ax1 /o/-/ KERAMEX®	1,800	7.4	61	18
1004633	1-CHKH-V 2Dx1 /o/-/ KERAMEX®	1,800	7.4	61	18
1004713	1-CHKH-V 3Ax1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004649	1-CHKH-V 3Cx1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004714	1-CHKH-V 3Dx1 /o/-/ KERAMEX®	2,500	8.0	78	27
1004667	1-CHKH-V 4x1 /b/-/ KERAMEX®	2,600	10.0	108	36
1004670	1-CHKH-V 4Ax1 /o/-/ KERAMEX®	2,600	10.0	108	36
1004675	1-CHKH-V 4Dx1 /č/-/ KERAMEX®	2,600	10.0	110	36
1003962	1-CHKH-V 4Dx1 /r/-/ KERAMEX®	2,400	10.0	110	36



**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CHKH-V KERAMEX-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004638	1-CHKH-V 5x1 /b/-/ KERAMEX ®	2,600	9.8	113	45
1004658	1-CHKH-V 7x1 /b/-/ KERAMEX ®	2,600	10.6	154	63
1004643	1-CHKH-V 12x1 KERAMEX ®	2,600	13.8	243	108
1004655	1-CHKH-V 12Cx1 KERAMEX ®	2,600	13.8	243	108
<b>1,5 mm²</b>					
1004718	1-CHKH-V 2Ax1,5 /h/-/ KERAMEX ®	1,800	8.4	78	27
1004640	1-CHKH-V 2Ax1,5 /o/-/ KERAMEX ®	1,800	8.4	78	27
1004693	1-CHKH-V 2Dx1,5 /b/-/ KERAMEX ®	6,000	8.4	79	27
1004628	1-CHKH-V 3x1,5 /h/-/ KERAMEX ®	1,800	9.0	101	41
1004672	1-CHKH-V 3Ax1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004679	1-CHKH-V 3Bx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004673	1-CHKH-V 3Cx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004662	1-CHKH-V 3Cx1,5 /o/-/ KERAMEX ®	6,000	9.0	100	41
1004669	1-CHKH-V 3Dx1,5 /h/-/ KERAMEX ®	1,800	9.0	100	41
1004699	1-CHKH-V 4x1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004716	1-CHKH-V 4x1,5 /o/-/ KERAMEX ®	1,300	12.6	213	54
1004717	1-CHKH-V 4Bx1,5 /h/-/ KERAMEX ®	1,800	11.3	140	54
1004648	1-CHKH-V 4Bx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004674	1-CHKH-V 4Cx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004712	1-CHKH-V 4Dx1,5 /o/-/ KERAMEX ®	1,800	11.3	140	54
1004696	1-CHKH-V 5x1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1004664	1-CHKH-V 5x1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004678	1-CHKH-V 5Cx1,5 /h/-/ KERAMEX ®	1,800	11.2	160	68
1004711	1-CHKH-V 5Dx1,5 /o/-/ KERAMEX ®	1,800	11.2	160	68
1004680	1-CHKH-V 7Cx1,5 /o/-/ KERAMEX ®	1,800	11.9	205	95
1004692	1-CHKH-V 7Dx1,5 /o/-/ KERAMEX ®	1,800	11.9	204	95
1004653	1-CHKH-V 12x1,5 /h/-/ KERAMEX ®	1,800	15.8	327	162
1004656	1-CHKH-V 12Cx1,5 /o/-/ KERAMEX ®	1,800	15.8	327	162
1004647	1-CHKH-V 19x1,5 /h/-/ KERAMEX ®	1,800	18.3	481	257
1004710	1-CHKH-V 19Cx1,5 /o/-/ KERAMEX ®	1,800	18.3	480	257
1004681	1-CHKH-V 24Cx1,5 /o/-/ KERAMEX ®	1,200	22.5	626	324
1004652	1-CHKH-V 37Cx1,5 /h/-/ KERAMEX ®	1,000	25.1	901	500
<b>2,5 mm²</b>					
1004659	1-CHKH-V 2Ax2,5 /h/-/ KERAMEX ®	1,800	9.6	111	45
1004720	1-CHKH-V 2Ax2,5 /o/-/ KERAMEX ®	2,200	9.6	111	45
1004686	1-CHKH-V 2Dx2,5 /b/-/ KERAMEX ®	1,400	9.6	111	45
1004660	1-CHKH-V 3x2,5 /h/-/ KERAMEX ®	1,400	10.3	145	68
1004700	1-CHKH-V 3Bx2,5 /č/-/ KERAMEX ®	1,400	10.3	144	68
1004685	1-CHKH-V 3Cx2,5 /h/-/ KERAMEX ®	1,400	10.3	144	68
1004627	1-CHKH-V 4x2,5 /h/-/ KERAMEX ®	1,400	11.0	182	90
1004677	1-CHKH-V 4Bx2,5 /o/-/ KERAMEX ®	1,400	11.0	182	90
1004719	1-CHKH-V 4Cx2,5 /o/-/ KERAMEX ®	1,400	11.0	182	90
1004629	1-CHKH-V 5x2,5 /h/-/ KERAMEX ®	1,400	12.1	221	113

**POWER CABLES 0,6 - 1 kV KERAMEX®****FIRE-RETARDANT AND FIRE-PROOF****CHKH-V KERAMEX-V**

cables for fixed bedding

**brief product overview**

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004694	1-CHKH-V 5x2,5 /o/-/ KERAMEX ®	1,400	12.1	221	113
1004709	1-CHKH-V 5Cx2,5 /h/-/ KERAMEX ®	1,400	12.1	220	113
1004689	1-CHKH-V 7x2,5 /b/-/ KERAMEX ®	1,400	13.2	283	158
1004654	1-CHKH-V 7Cx2,5 /h/-/ KERAMEX ®	1,400	13.2	283	158
1004701	1-CHKH-V 12x2,5 /h/-/ KERAMEX ®	1,400	17.4	458	270
1004666	1-CHKH-V 24Cx2,5 /o/-/ KERAMEX ®	1,000	25.0	883	540
1004721	1-CHKH-V 37Cx2,5 /h/-/ KERAMEX ®	750	27.9	1,294	833
<b>4 mm²</b>					
1004635	1-CHKH-V 2Ax4 /o/-/ KERAMEX ®	1,100	10.5	146	72
1004702	1-CHKH-V 3x4 /h/-/ KERAMEX ®	1,130	11.3	195	108
1004695	1-CHKH-V 3Bx4 /h/-/ KERAMEX ®	1,130	11.3	197	108
1004646	1-CHKH-V 3Cx4 /h/-/ KERAMEX ®	1,130	11.3	197	108
1004682	1-CHKH-V 4Bx4 /h/-/ KERAMEX ®	1,100	12.2	248	144
1004671	1-CHKH-V 4Dx4 /h/-/ KERAMEX ®	1,100	12.2	248	144
1004668	1-CHKH-V 5x4 /h/-/ KERAMEX ®	1,100	13.3	305	180
1004707	1-CHKH-V 5Cx4 /h/-/ KERAMEX ®	1,100	13.3	305	180
1004665	1-CHKH-V 7x4 /b/-/ KERAMEX ®	1,100	14.6	395	252
1004632	1-CHKH-V 7Cx4 /h/-/ KERAMEX ®	1,100	14.6	395	252
1004690	1-CHKH-V 12x4 /h/-/ KERAMEX ®	1,100	19.8	666	432
<b>6 mm²</b>					
1004642	1-CHKH-V 2Ax6 /h/-/ KERAMEX ®	1,300	11.6	191	108
1004636	1-CHKH-V 3x6 /h/-/ KERAMEX ®	1,400	12.5	261	162
1004706	1-CHKH-V 3Cx6 /o/-/ KERAMEX ®	1,400	12.5	261	162
1004687	1-CHKH-V 4x6 /h/-/ KERAMEX ®	1,400	13.5	336	216
1004641	1-CHKH-V 4Bx6 /o/-/ KERAMEX ®	1,400	13.5	336	216
1004705	1-CHKH-V 4Dx6 /h/-/ KERAMEX ®	1,400	13.5	336	216
1004663	1-CHKH-V 5x6 /h/-/ KERAMEX ®	1,400	14.8	412	270
1004704	1-CHKH-V 5Cx6 /h/-/ KERAMEX ®	1,400	14.8	412	270
1004639	1-CHKH-V 7x6 /b/-/ KERAMEX ®	1,350	16.2	542	378
<b>10 mm²</b>					
1004703	1-CHKH-V 5x10 /h/-/ KERAMEX ®	900	17.4	629	450
1004708	1-CHKH-V 7x10 /b/-/ KERAMEX ®	900	19.5	853	630
<b>16 mm²</b>					
1004676	1-CHKH-V 5x16 /h/-/ KERAMEX ®	1,600	20.4	951	720
1004697	1-CHKH-V 7x16 /b/-/ KERAMEX ®	1,300	22.3	1,271	1,008

**dimension variants**

core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl	core cross-section in mm²	number of coresl
0,5	1-70	6	1-40	70	1-7
0,75	1-70	10	1-25	95	1-3
1	1-70	16	1-25	120	1
1,5	1-70	25	1-15	150	1
2,5	1-70	35	1-15	185	1
4	1-40	50	1-7	240	1
				300	1

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# WEAK-CURRENT CABLES

## glossary of terms


### product features


**halogen-free** - the components of a halogen-free product are made of exclusively halogen-free material. If a halogen-free product is on fire, no corrodible gasses are produced. Cables are supposed to be halogen-free if they meet the recommendations of the ČSN EN 50267 standard. These products usually meet other standards for a lower production of smoke under fire conditions (ČSN EN 50268).

**for places with the threat of explosion** thanks to their construction and materials used, the product does not transmit axially dangerous vapours

 the ESČ sign stands for the compliance between the features of the marked products with the standards on electrical safety.

**sparking-safe circuits** cables are designed for environments with the threat of fire Zones 0;1;2 provided that the conditions of sparking safety according to IEC 79-11 are respected

**fire non-effusing** (product marked by ) has an enhanced resistance to the effect of flame under fire conditions of a bundle. The products marked by this sign must meet the ČSN EN 50266 A F/R, A, B, C or D. In this case, the letter suffix stands for a different testing methodology varying mainly in the time for which the flame effects the cable and in the number of non-metal parts in the sample. The marking -R meets mainly the standard in class A (other marking -F/R, -R, -R/B, -R/C, -R/D)

**fire-proof** (product marked by ) a product with insulation integrity with enhanced resistance to flame during a test according to ČSN IEC 60 331, with a given gasflow, the dimensions of the burner and the temperature higher than 750°C

**LOCA** maximum project accident on a NPP, the cable is resistant to ionizing radiation

**E-90** cables with retained functionality E 90 according to DIN 4102-12, in combination with cable system complying with the same requirements

**E - 30** cables with retained functionality E 30 according to DIN 4102-12, in combination with cable system complying with the same requirements

### identification of standards

**ASTM** American standard of testing materials (USA)

**ANSI** American national standards institute (USA)

**BS** British standard (Great Britain)

**CEN** European Committee for Standardization (Brussels) - the abbreviation is derived from the French name of the commity: Comité Européen de Normalisation, established in 1975

**ČSN** Czech national standard

**ČSN EN** Czech version of a European standard

**ČSN IEC** Czech version of an international standard

**DEP** Design and Engineering Practise - Shell construction standards

**DIN** Deutsches institut für normung (Germany) - German standards

**EN** European standards

**GOST** - Soviet standards

**IEC** International Electrotechnical Commission - (Geneve), established in 1906 - international standards

**IEEE** The Institute of Electrical and Electronics Engineers

**ISO** International Organization for Standardization (Geneve) established in 1947

**MESC** Material and Equipment Standards and Code - Shell construction standards

**NFC** Normes Françaises Class C (France) - French standards

**VDE** Verein Deutscher Elektroingenieure (Germany) - German standards

### material identification

**HDPE** low-pressure polyethylen

**LDPE** high-pressure polyethylen

**PE** polyethylen

**PVC** polyvinilchloride

**XLPE** cross-linked polyethylen

### cable circuits

**CCTV** closed television circuit

**EPS** Electronic fire alarm system

**GAS** circuits for gas detection




















**MaR** measurement and regulation circuits



# WEAK-CURRENT CABLES

## conductor marking

ČSN IEC 189-2

cores	A	B	C	D	E
1 - 5					
6 - 10					
11 - 15					
16 - 20					
21 - 25					
26 - 30					
31 - 35					
36 - 40					

# WEAK-CURRENT CABLES

## conductor marking and icons



Nominal voltage of cables up to the value indicated on the icon



Maximum operating temperature at fixed bedding



Minimum operating temperature at fixed bedding



Cables for indoor use



Cables for outdoor use



Cables designed for burial into ground



Cables with low smoke effusion at combustion, halogen-free



Self-extinctive cables according to IEC 60 332-1; EN 50 265-2-1



Fire-retardant cables according to IEC 60 332-3-22 cat. A; EN 50 266-2-2 cat. A



Fire-proof cables according to IEC 60 331



Cables resistant to solutions pH 4-11



Cables meet the requirements of refineries, generally stated in MESG SPEC 68.51/001 and DEP 32.37.20.10-Gen. documents



Cables are designed for the environment with the threat of explosion Zone 0;1;2 at the compliance with the requirements of sparking security according to IEC 79-11.

### derived variants



**ZE** - cables equipped with light armour, with FeZn braiding at 75% overlap



**AR** - cables equipped with armour made of Al wrapping or of FeZn wires and simultaneous binding wind by FeZn tape.



**LOCA** - cables designed for bedding in environment with higher level of ionizing radiation. Primarily, these cables are qualified for hermetic zones of nuclear power stations..



**WB** - cables resistant to longitudinal penetration of liquids through the cable core.



**(st) cable element shielded by Al tape** CuSn wire braiding with collector conductor for damping the EM interference among cable elements

# WEAK-CURRENT CABLES

## product overview

### PVC COMMUNICATION CABLES UP TO 100 V

SCYFY	88
SC2YFY	88
SC5YFY	88

### COMMUNICATION CABLES FIRE-RETARDANT AND FIRE-PROOF UP TO 100 V

SCXFE-R	90
SC2XFE-R	92
SC5XFE-R	92
SCXFE-V	94
SC2XFE-V	96
SC5XFE-V	96

### INSTALLATION CABLES UP TO 300V

J-H(St)H	97
JE-H(St)H	98

### PVC WEAK-CURRENT CABLES UP TO 500 V

JCYFY	99
JC2YFY	99
JC5YFY	99

### WEAK-CURRENT CABLES FIRE-RETARDANT AND FIRE-PROOF UP TO 500 V

JCXKE-R	102
JCXFE-R	103
JC2XFE-R	110
JC5XFE-R	113
JCXKE-V	115
JCXFE-V	116
JC2XFE-V	119
JC5XFE-V	119

All products comply with the 2002/95/EC RoHS regulation that bans the use of certain dangerous substances in electrical and electronic devices.



# COMMUNICATION CABLES up to 100 V

**SCYFY; SC2YFY; SC5YFY**  
cables for fixed and free bedding

weak-current cables

## use

PVC cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

- cables with PVC core and jacket insulation.
- min. bending semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

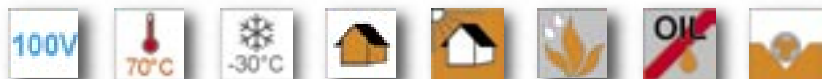
- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in black or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,4 mm</b>					
1003048	SCYFY 8x2x0,4 /č/-/	7,500	6.9	58	21
<b>0,5 mm</b>					
1003033	SCYFY 1x2x0,5 /č/-/	5,800	4.1	23	6
1003038	SCYFY 2x2x0,5 /č/-/	5,800	5.0	32	10
1003041	SCYFY 3x2x0,5 /č/-/	5,800	5.6	40	13
1003045	SCYFY 5x2x0,5 /č/-/	5,800	6.5	53	20
1003542	SCYFY 5x2x0,5 /st/š/-/	3,300	10.2	144	34
1003030	SCYFY 10x2x0,5 /č/-/	5,800	8.7	94	38
1003036	SCYFY 25x2x0,5 /č/-/	5,100	12.1	187	91

# COMMUNICATION CABLES up to 100 V

**SCYFY; SC2YFY; SC5YFY**  
cables for fixed and free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,6 mm</b>					
1003042	SCYFY 3x2x0,6 /č/-/	4,700	5.9	46	18
1003031	SCYFY 10x2x0,6 /č/-/	4,700	9.3	115	54
<b>0,8 mm</b>					
1003034	SCYFY 1x2x0,8 /č/-/	2,000	5.0	34	11
1003035	SCYFY 1x2x0,8 /st/š/-/	1,400	5.7	40	14
1003317	SCYFY 2x2x0,8 /č/-/	5,800	6.9	51	21
<b>1 mm</b>					
1003043	SCYFY 3x2x1 /st/š/-/	1,300	9.6	114	50
1003044	SCYFY 4x2x1 /st/š/-/	1,800	10.7	141	66
1003046	SCYFY 6x2x1 /st/š/-/	1,300	12.5	193	98
1003047	SCYFY 7x2x1 /st/š/-/	1,300	13.2	218	114
<b>1,12 mm</b>					
1003037	SCYFY 2x1,12 /č/-/	6,600	5.6	47	21
1003039	SCYFY 2x2x1,12 /č/-/	1,600	7.3	75	39
1003032	SCYFY 12x1,12 /č/-/	6,600	9.8	183	111
<b>1,38 mm</b>					
1003040	SCYFY 2x2x1,38 /m/-/	1,600	0.0	0	0

weak-current cables

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# COMMUNICATION CABLES up to 100 V

FIRE-RETARDANT

SCXFE-R

cables for fixed bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1002950	SCXFE-R 2x2x0,5 /o/-/	5,900	4.9	30	10
1002958	SCXFE-R 3x2x0,5 /o/-/	5,900	5.5	37	13
1003644	SCXFE-R 4x2x0,5 /o/-/	5,900	6.0	43	17
1002964	SCXFE-R 5x2x0,5 /o/-/	5,900	6.5	51	20
1002969	SCXFE-R 6x2x0,5 /o/-/	5,900	6.8	55	24
1002926	SCXFE-R 10x2x0,5 /o/-/	5,900	8.7	88	38
1002931	SCXFE-R 12x2x0,5 /o/-/	2,000	9.2	99	46
1002944	SCXFE-R 20x2x0,5 /o/-/	5,900	11.0	143	73

# COMMUNICATION CABLES up to 100 V

FIRE-RETARDANT

SCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1005240	SCXFE-R 25x2x0,5 /o/-/	5,400	11.8	66	3
1005315	SCXFE-R 25x2x0,5 /o/-/	5,400	11.8	66	3
1002955	SCXFE-R 30x2x0,5 /o/-/	4,300	13.0	199	109
<b>0,6 mm</b>					
1002951	SCXFE-R 2x2x0,6 /o/-/	4,800	5.2	34	13
1002959	SCXFE-R 3x2x0,6 /o/-/	4,800	5.8	42	18
1002966	SCXFE-R 5x2x0,6 /o/-/	4,700	6.9	65	34
1002970	SCXFE-R 6x2x0,6 /o/-/	4,800	7.3	66	33
<b>0,8 mm</b>					
1002938	SCXFE-R 1x2x0,8 /o/-/	2,400	5.0	33	12
1005507	SCXFE-R 1x2x0,8 /r/-/	2,400	5.0	33	12
1002952	SCXFE-R 2x2x0,8 /o/-/	2,200	6.4	48	21
1002960	SCXFE-R 3x2x0,8 /o/-/	2,400	7.3	64	30
1004038	SCXFE-R 3x3x0,8 /o/-/	1,800	9.4	95	43
1002963	SCXFE-R 4x2x0,8 /o/-/	2,400	8.1	77	39
1002967	SCXFE-R 5x2x0,8 /o/-/	2,400	9.2	100	48
1004036	SCXFE-R 7x2x0,8 /o/-/	2,300	10.4	128	66
1004037	SCXFE-R 7x3x0,8 /o/-/	1,800	11.9	174	97
1002928	SCXFE-R 10x2x0,8 /o/čb cores/	2,400	12.0	171	93
1004040	SCXFE-R 12x2x0,8 /o/-/	2,300	11.3	189	111
1002933	SCXFE-R 12x2x0,8 /o/čb cores/	2,400	11.3	189	111
1004042	SCXFE-R 12x3x0,8 /o/-/	1,800	15.6	275	165
1004039	SCXFE-R 20x2x0,8 /o/-/	2,300	15.7	299	183
1004041	SCXFE-R 20x3x0,8 /o/-/	1,200	22.2	460	273
1002946	SCXFE-R 24x2x0,8 /o/čb cores/	2,200	17.5	370	219
<b>1 mm</b>					
1002940	SCXFE-R 1x2x1 /o/-/	4,600	5.4	39	16
1002943	SCXFE-R 1x3x1 /m/-/	2,000	5.7	49	23
1004942	SCXFE-R 2x2x1 /m/-/	1,800	6.9	61	30
1002953	SCXFE-R 2x2x1 /o/-/	1,800	6.9	61	30
1005303	SCXFE-R 3x2x1 /o/-/	1,800	8.0	81	43
1004948	SCXFE-R 8x2x1 /o/-/	1,800	12.1	187	111
1004947	SCXFE-R 12x2x1 /o/-/	1,800	14.2	262	165
<b>1,12 mm</b>					
1002941	SCXFE-R 1x2x1,12 /o/-/	4,100	5.6	46	21
<b>1,2 mm</b>					
1002942	SCXFE-R 1x2x1,2 /b/-/	3,100	6.2	51	23
<b>derived variants</b>					
1002965	SCXFE-R 5x2x0,5 /st/o/-/	3,300	7.9	73	32

weak-current cables

# COMMUNICATION CABLES up to 100 V

**FIRE-RETARDANT****SC2XFE-R; SC5XFE-R**

cables for free bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

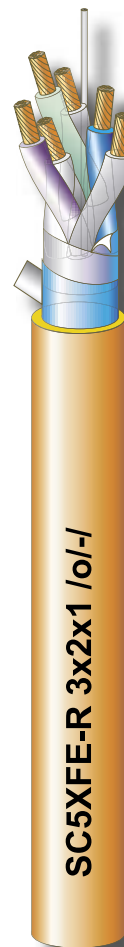
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>SC2XFE-R</b>					
1004048	SC2XFE-R 5x2x0,5 /o/-/	1,800	10.2	114	53
<b>SC5XFE-R</b>					
<b>0,22 mm</b>					
1003183	SC5XFE-R 4x0,22 /f/bzčr/	15,600	5.0	31	11
<b>0,5 mm</b>					

# COMMUNICATION CABLES up to 100 V

## FIRE-RETARDANT

### SC2XFE-R; SC5XFE-R

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002899	SC5XFE-R 1x2x0,5 /o/-/	1,800	5.4	33	11
1004034	SC5XFE-R 1x3x0,5 /o/-/	2,600	5.8	41	16
1004035	SC5XFE-R 7x2x0,5 /o/-/	1,100	11.5	133	63
<b>0,75 mm</b>					
1005160	SC5XFE-R 1x2x0,75 /č/čb cores/	1,900	5.6	41	16
1005161	SC5XFE-R 1x3x0,75 /č/čb cores/	3,200	5.9	49	23
1005163	SC5XFE-R 2x2x0,75 /č/čb cores/	1,600	7.2	61	29
<b>1,5 mm</b>					
1005162	SC5XFE-R 2x2x1,5 /č/čb cores/	900	9.4	105	53

weak-current cables

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

## conductor parameters

conductor diameter mm	conductor cross-section  mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C					
		Ohm/km					
		class 1	class 2	class 5	class 1	class 2	class 5
0,3	0,08	237	237	237	244	244	244
0,4	0,126	150	150	150	155	155	155
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,2	1,15	17,3	17,3	17,3	17,8	17,8	17,8
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21

class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper

class 2- stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter

class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# COMMUNICATION CABLES up to 100 V

## FIRE-RETARDANT AND FIRE-PROOF

### SCXFE-V

cables for fixed bedding

weak-current cables

#### use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

#### features

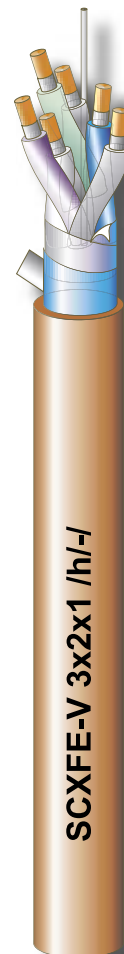
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1002991	SCXFE-V 4x2x0,5 /o/-/	2,800	7.7	57	17
1002981	SCXFE-V 20x2x0,5 /o/-/	2,800	14.9	194	73
1002984	SCXFE-V 25x2x0,5 /o/-/	2,500	16.3	230	91
<b>0,6 mm</b>					
1002975	SCXFE-V 1x2x0,6 /o/br cores/	2,400	5.0	30	9
<b>0,8 mm</b>					
1005486	SCXFE-V 1x2x0,8 /h/-/	1,700	5.8	39	12
1002976	SCXFE-V 1x2x0,8 /o/-/	1,700	5.8	39	12



# COMMUNICATION CABLES up to 100 V

## FIRE-RETARDANT AND FIRE-PROOF

### SCXFE-V

cables for fixed bedding

#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002985	SCXFE-V 2x2x0,8 /h/-/	1,400	7.5	58	20
1004808	SCXFE-V 2x2x0,8 /o/-/	1,400	7.5	58	20
1002992	SCXFE-V 4x2x0,8 /h/-/	1,400	10.2	104	39
1002994	SCXFE-V 5x2x0,8 /o/-/	1,400	11.1	123	48
1002990	SCXFE-V 30x2x0,8 /o/-/	1,100	23.7	538	273
<b>1 mm</b>					
1002980	SCXFE-V 1x3x1 /o/-/	1,300	6.6	58	23
1002987	SCXFE-V 2x2x1 /o/-/	1,100	8.1	70	30
1005051	SCXFE-V 6x2x1 /o/-/	1,200	12.9	175	84
<b>1,2 mm</b>					
1002979	SCXFE-V 1x2x1,2 /o/-/	1,500	7.0	57	22
1002989	SCXFE-V 2x2x1,2 /o/-/	800	9.7	101	42
1002993	SCXFE-V 4x2x1,2 /o/-/	800	12.7	170	82
1002998	SCXFE-V 8x2x1,2 /o/-/	800	16.8	299	161
<b>derived variants</b>					
1003014	SCXFOE-V 4x2x0,5 /st/o/-/	1,800	12.0	205	73

weak-current cables

#### dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# COMMUNICATION CABLES up to 100 V

FIRE-RETARDANT AND FIRE-PROOF

SC2XFE-V; SC5XFE-V

cables for free bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

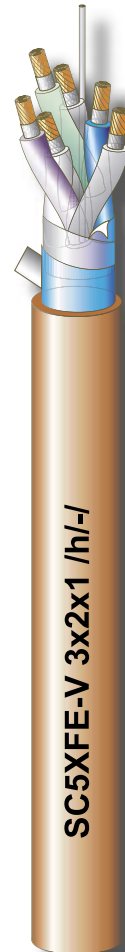
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

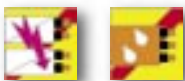
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# INSTALLATION CABLES up to 300 V

## FIRE-RETARDANT

### J-H st H

cables for fixed bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# INSTALLATION CABLES up to 300 V

FIRE-RETARDANT AND FIRE-PROOF

JE-H st H

cables for fixed bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

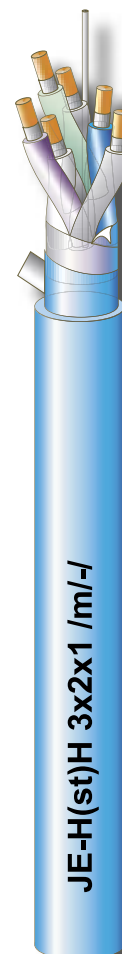
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# PVC WEAK-CURRENT CABLES up to 500 V

JCYFY; JC2YFY; JC5YFY

cables for fixed and free bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

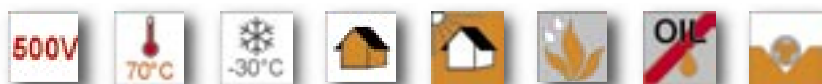
Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1003538	JCYFY 2x2x0,5 /č/-/	1,400	6.6	49	10
1002565	JCYFY 3x2x0,5 /č/-/	2,800	7.7	65	13
1002579	JCYFY 5x2x0,5 /č/-/	2,800	9.1	88	20
1003227	JCYFY 12x2x0,5 /st/č/-/	1,000	15.1	235	77
1003301	JCYFY 25x2x0,5 /č/-/	2,500	17.0	293	91
1003294	JCYFY 50x2x0,5 /č/-/	1,200	23.1	531	180
<b>0,6 mm</b>					
1002548	JCYFY 1x2x0,6 /č/-/	2,400	5.9	43	8
1002557	JCYFY 2x2x0,6 /č/-/	2,400	7.2	61	16
1002566	JCYFY 3x2x0,6 /č/-/	2,400	8.2	75	18
1002575	JCYFY 4x2x0,6 /č/-/	2,400	8.9	93	28

# PVC WEAK-CURRENT CABLES up to 500 V

JCYFY; JC2YFY; JC5YFY  
cables for fixed and free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002580	JCYFY 5x2x0,6 /č/-/	2,400	10.1	113	28
1002586	JCYFY 8x2x0,6 /č/-/	2,400	11.8	152	43
1002539	JCYFY 10x2x0,6 /č/-/	2,400	12.8	178	54
1002564	JCYFY 30x2x0,6 /č/-/	1,700	20.0	430	156
<b>0,8 mm</b>					
1002549	JCYFY 1x2x0,8 /č/-/	1,400	6.6	51	12
1002558	JCYFY 2x2x0,8 /o/-/	1,400	8.3	78	21
1003197	JCYFY 2x2x0,8 /o/FK93/	1,400	5.9	78	21
1002567	JCYFY 3x2x0,8 /č/-/	1,400	10.0	111	30
1002576	JCYFY 4x2x0,8 /č/-/	1,400	11.0	135	39
1002581	JCYFY 5x2x0,8 /č/-/	1,400	11.9	158	48
1002582	JCYFY 6x2x0,8 /č/-/	1,400	12.7	180	57
1002587	JCYFY 8x2x0,8 /č/-/	1,400	14.1	212	74
1002540	JCYFY 10x2x0,8 /č/-/	1,400	15.4	261	93
1002542	JCYFY 12x2x0,8 /č/-/	1,400	16.6	297	111
1002546	JCYFY 19x2x0,8 /č/-/	1,400	20.3	448	174
1003307	JCYFY 20x2x0,8 /č/-/	1,400	20.7	467	183
<b>1 mm</b>					
1003137	JCYFY 2x1 /č/-/	4,700	7.0	61	16
1002550	JCYFY 1x2x1 /č/-/	1,100	7.0	61	16
1002559	JCYFY 2x2x1 /o/-/	1,100	8.9	93	30
1002563	JCYFY 2x3x1 /č/-/	950	12.3	148	44
1003558	JCYFY 3x2x1 /o/-/	1,200	10.7	133	43
1002572	JCYFY 3x3x1 /č/-/	950	13.2	186	64
1003559	JCYFY 4x2x1 /o/-/	1,200	11.8	161	57
1003149	JCYFY 5x1 /č/-/	4,700	9.4	108	36
1003563	JCYFY 5x2x1 /o/-/	1,200	12.8	190	70
1003568	JCYFY 6x2x1 /o/-/	1,200	13.7	218	84
1003264	JCYFY 7x1 /č/-/	4,700	9.0	125	50
1002585	JCYFY 7x2x1 /o/-/	1,100	14.5	244	97
1003557	JCYFY 8x2x1 /o/-/	1,200	15.3	271	111
1002590	JCYFY 8x3x1 /č/-/	950	19.3	404	165
1003565	JCYFY 10x2x1 /o/-/	1,200	16.7	323	138
1003178	JCYFY 12x1 /č/-/	4,700	11.8	203	84
1002543	JCYFY 12x2x1 /č/-/	650	18.4	396	165
1002545	JCYFY 12x3x1 /č/-/	950	22.4	554	246
1003228	JCYFY 19x1 /č/-/	4,600	13.4	287	131
1004832	JCYFY 37Dx1 /š/-/	4,700	17.4	505	252
1003318	JCYFY 37x1 /č/-/	4,700	17.4	505	252
<b>1,12 mm</b>					
1002551	JCYFY 1x2x1,12 /č/-/	850	7.7	73	21
1003871	JCYFY 1x2x1,12 /m/-/	850	7.7	73	21
1002560	JCYFY 2x2x1,12 /m/-/	900	10.3	123	39



# PVC WEAK-CURRENT CABLES up to 500 V

JCYFY; JC2YFY; JC5YFY  
cables for fixed and free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002568	JCYFY 3x2x1,12 /č/-/	1,800	11.9	165	57
1002569	JCYFY 3x2x1,12 /st/č/-/	600	13.0	188	65
1002570	JCYFY 3x2x1,12 /WB/č/-/	1,600	8.6	106	57
1002588	JCYFY 8x2x1,12 /č/-/	600	19.4	409	168
1002541	JCYFY 10x2x1,12 /č/-/	650	21.3	497	209
1002547	JCYFY 19x2x1,12 /č/-/	900	25.0	728	345
1002554	JCYFY 27x2x1,12 /č/-/	700	29.1	988	489
<b>1,38 mm</b>					
1002552	JCYFY 1x2x1,38 /č/-/	1,000	8.2	89	30
1002553	JCYFY 1x3x1,38 /č/-/	2,800	8.7	107	43
1002561	JCYFY 2x2x1,38 /č/-/	700	11.1	151	57
1002571	JCYFY 3x2x1,38 /č/-/	700	12.8	202	84
1002577	JCYFY 4x2x1,38 /č/-/	650	14.3	254	111
1002578	JCYFY 4x3x1,38 /č/-/	900	19.8	383	165
1002583	JCYFY 6x2x1,38 /č/-/	700	16.7	346	165
1002589	JCYFY 8x2x1,38 /č/-/	650	19.2	455	219
1002544	JCYFY 12x2x1,38 /č/-/	700	22.5	637	327
<b>1,5 mm</b>					
1002584	JCYFY 7x1,5 /č/-/	2,700	13.6	230	97
<b>1,78 mm</b>					
1002555	JCYFY 2x1,78 /č/-/	2,000	9.0	110	48
1002562	JCYFY 2x2x1,78 /m/-/	500	12.2	199	93
1002573	JCYFY 4x1,78 /č/-/	1,500	10.6	190	93
<b>2,24 mm</b>					
1002556	JCYFY 2x2,24 /č/-/	1,500	10.4	158	75
1002574	JCYFY 4x2,24 /č/-/	1,500	11.8	260	147
<b>JC2YFY</b>					
1005930	JC2YFY 15x2x0,75 /š/-/	900	21.7	506	213
1005931	JC2YFY 2x2x0,75 /š/-/	900	9.9	109	31
1005932	JC2YFY 30x2x0,75 /š/-/	700	29.1	904	423
1003977	JC2YFY 4x2x1 /š/čb cores/	650	13.5	197	83

weak-current cables

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXKE-R

cables for fixed bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on

flammable surface, for sparking safe circuits. Other use must be agreed with the cable

producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

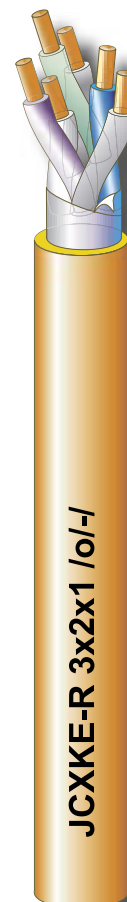
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002473	JCXKE-R 12x2x1 /ZE/-/	1,200	20.6	594	167
1002499	JCXKE-R 30x2x1 /ZE/o/-/	650	29.5	1,225	410
1002509	JCXKE-R 4x2x1 /ZE/o/-/	1,200	14.1	271	59

# WEAK-CURRENT CABLES up to 500 V

## FIRE-RETARDANT

### JCXFE-R

cables for fixed bedding

#### use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

#### features

- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

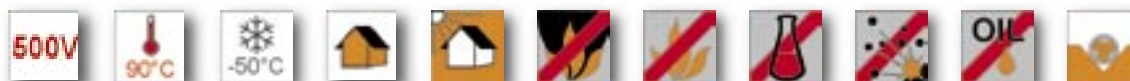
Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1002079	JCXFE-R 1x2x0,5 /o/-/	3,000	5.2	33	6
1002146	JCXFE-R 2x0,5 /o/-/	11,000	5.2	31	6
1002153	JCXFE-R 2x2x0,5 /o/-/	2,800	6.5	43	10
1002189	JCXFE-R 3x2x0,5 /o/-/	2,800	7.4	54	13
1002211	JCXFE-R 4x2x0,5 /o/-/	2,800	8.1	63	17
1002231	JCXFE-R 5x2x0,5 /o/-/	2,800	1.3	80	29
1005014	JCXFE-R 6x2x0,5 /o/-/	2,800	9.7	88	24
1002268	JCXFE-R 8x2x0,5 /o/-/	2,800	10.8	109	31
1002014	JCXFE-R 10x2x0,5 /o/-/	2,800	11.6	124	38
1002035	JCXFE-R 12x2x0,5 /o/-/	1,400	12.5	144	46

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002059	JCXFE-R 15x2x0,5 /o/-/	2,800	13.7	166	56
1002123	JCXFE-R 20x2x0,5 /o/-/	2,800	15.2	203	73
1002142	JCXFE-R 25x2x0,5 /o/-/	2,500	16.6	241	91
1002183	JCXFE-R 30x2x0,5 /o/-/	2,100	18.4	298	109
1002205	JCXFE-R 48x2x0,5 /o/-/	1,350	22.3	427	173
1003616	JCXFE-R 50x2x0,5 /o/-/	500	22.7	436	177
<b>0,6 mm</b>					
1002154	JCXFE-R 2x2x0,6 /o/-/	2,400	6.8	50	15
1002190	JCXFE-R 3x2x0,6 /o/-/	2,400	7.7	63	21
1002212	JCXFE-R 4x2x0,6 /o/-/	2,400	8.5	77	28
1002204	JCXFE-R 40x2x0,6 /o/-/	1,400	22.0	497	252
<b>0,8 mm</b>					
1002081	JCXFE-R 1x2x0,8 /o/-/	1,600	6.3	45	12
1003776	JCXFE-R 1x2x0,8 /r/-/	1,600	6.3	45	12
1002121	JCXFE-R 1x4x0,8 /o/-/	5,800	7.9	64	21
1005113	JCXFE-R 2x2x0,8 /m/-/	1,400	7.9	64	21
1002156	JCXFE-R 2x2x0,8 /o/-/	1,400	7.9	64	21
1005209	JCXFE-R 2x2x0,8 /r/-/	1,400	7.9	64	21
1005862	JCXFE-R 2x2x0,8 /st/o/-/	1,000	8.9	83	26
1002191	JCXFE-R 3x2x0,8 /o/-/	1,400	9.6	95	30
1002192	JCXFE-R 3x2x0,8 /o/čb cores/	1,400	9.6	95	30
1002213	JCXFE-R 4x2x0,8 /o/-/	1,400	10.6	113	39
1002225	JCXFE-R 4x3x0,8 /o/-/	1,100	14.6	165	57
1002232	JCXFE-R 5x2x0,8 /o/-/	1,400	11.5	131	48
1002246	JCXFE-R 5x4x0,8 /o/-/	700	15.4	219	93
1002247	JCXFE-R 6x2x0,8 /č/čb cores/	1,400	12.2	148	57
1002248	JCXFE-R 6x2x0,8 /o/-/	1,400	12.2	154	61
1002261	JCXFE-R 7x2x0,8 /o/-/	1,400	13.1	167	66
1003634	JCXFE-R 8x2x0,8 /č/-/	1,400	13.8	184	75
1003630	JCXFE-R 8x2x0,8 /m/-/	1,400	13.8	184	75
1002269	JCXFE-R 8x2x0,8 /o/-/	1,400	13.8	184	75
1003627	JCXFE-R 10x2x0,8 /č/-/	1,400	14.9	216	93
1003628	JCXFE-R 10x2x0,8 /m/-/	1,400	14.9	216	93
1002016	JCXFE-R 10x2x0,8 /o/-/	1,400	14.9	216	93
1002021	JCXFE-R 10x2x0,8 /ZE/š/-/	1,400	18.1	436	97
1005386	JCXFE-R 10x2x0,8 /ZE/š/čb cores/	1,400	18.1	436	97
1002033	JCXFE-R 10x4x0,8 /o/-/	700	23.4	418	183
1005700	JCXFE-R 12x2x0,8 /m/-/	1,400	16.1	250	111
1002036	JCXFE-R 12x2x0,8 /o/-/	1,400	16.1	250	111
1002060	JCXFE-R 15x2x0,8 /o/-/	1,400	17.6	298	138
1002065	JCXFE-R 16x2x0,8 /o/-/	1,400	18.1	314	147
1005966	JCXFE-R 16x2x0,8 /ZE/m/-/	1,400	21.7	625	151
1003631	JCXFE-R 20x2x0,8 /č/-/	1,400	20.4	401	183

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003633	JCXFE-R 20x2x0,8 /m/-/	1,400	20.4	401	183
1002124	JCXFE-R 20x2x0,8 /o/-/	1,400	20.4	401	183
1004820	JCXFE-R 20x2x0,8 /š/-/	1,400	20.4	401	183
1002135	JCXFE-R 24x2x0,8 /o/-/	1,300	21.9	458	219
1002143	JCXFE-R 25x2x0,8 /o/-/	1,300	22.4	480	227
1002144	JCXFE-R 25x4x0,8 /o/-/	700	30.5	882	453
1002184	JCXFE-R 30x2x0,8 /o/-/	1,100	24.1	553	273
	<b>1 mm</b>				
1003613	JCXFE-R 1x2x1 /č/-/	2,900	6.6	52	16
1003629	JCXFE-R 1x2x1 /m/-/	2,900	6.6	52	16
1002085	JCXFE-R 1x2x1 /o/-/	2,900	6.6	52	16
1002086	JCXFE-R 1x2x1 /š/čb cores/	2,900	6.6	52	16
1002110	JCXFE-R 1x3x1 /o/-/	700	7.7	77	23
1002148	JCXFE-R 2x1 /o/-/	4,800	6.6	50	16
1004946	JCXFE-R 2x2x1 /č/-/	1,100	8.5	78	30
1003951	JCXFE-R 2x2x1 /m/-/	1,100	8.5	78	30
1002160	JCXFE-R 2x2x1 /o/-/	1,100	8.5	78	30
1002186	JCXFE-R 3x1 /o/-/	4,800	7.0	61	23
1004944	JCXFE-R 3x2x1 /m/-/	1,100	10.3	113	43
1002194	JCXFE-R 3x2x1 /o/-/	1,100	10.3	113	43
1002206	JCXFE-R 4Bx1 /o/-/	4,700	8.2	77	30
1002207	JCXFE-R 4Cx1 /o/-/	4,700	8.7	86	30
1002216	JCXFE-R 4x2x1 /o/-/	1,110	11.4	138	57
1002218	JCXFE-R 4x2x1 /š/čb cores/	1,110	11.4	138	57
1003954	JCXFE-R 5x2x1 /m/-/	1,200	12.4	162	70
1002238	JCXFE-R 5x2x1 /o/-/	1,200	12.4	162	70
1002251	JCXFE-R 6x2x1 /č/čb cores/	1,100	13.3	186	83
1002272	JCXFE-R 8x2x1 /č/-/	1,100	14.9	231	111
1004945	JCXFE-R 10x2x1 /m/-/	1,200	16.3	276	138
1003953	JCXFE-R 10x2x1 /m/-/	1,200	16.3	276	138
1002022	JCXFE-R 10x2x1 /o/-/	1,200	16.3	276	138
1004938	JCXFE-R 12x2x1 /m/-/	1,100	18.0	340	165
1002041	JCXFE-R 12x2x1 /o/-/	1,100	18.0	340	165
1002056	JCXFE-R 14x0,8 /o/-/	5,900	11.6	157	66
1002062	JCXFE-R 15x2x1 /č/-/	1,100	19.6	403	205
1004880	JCXFE-R 15x2x1 /m/-/	1,100	19.6	403	205
1003955	JCXFE-R 15x2x1 /o/-/	1,100	19.6	403	205
1002071	JCXFE-R 16x3x1 /o/-/	1,000	17.9	556	327
1002072	JCXFE-R 16x3x1 /o/č,b,r/	1,000	17.9	558	327
1002073	JCXFE-R 17x3x1 /o/č,b,r/	1,000	18.3	589	347
1002075	JCXFE-R 19x1 /o/-/	4,700	13.0	248	131
1003952	JCXFE-R 20x2x1 /m/-/	1,200	22.3	514	273
1002130	JCXFE-R 20x2x1 /o/-/	1,200	22.3	514	273

weak-current cables

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002132	JCXFE-R 20x2x1,12 /o/-/	850	25.2	657	363
1002134	JCXFE-R 24x1 /o/-/	3,100	15.4	299	162
1004939	JCXFE-R 24x2x1 /m/-/	1,100	24.0	596	327
1002139	JCXFE-R 24x2x1 /o/-/	1,100	24.0	596	327
<b>1,12 mm</b>					
1005701	JCXFE-R 1x2x1,12 /č/-/	850	7.2	59	21
1004825	JCXFE-R 1x2x1,12 /m/-/	850	7.2	59	21
1002088	JCXFE-R 1x2x1,12 /m/čb cores numbered/	1,100	7.2	61	21
1005151	JCXFE-R 1x2x1,12 /o/-/	850	7.2	59	21
1005049	JCXFE-R 1x2x1,12 /o/-/	1,400	6.7	54	18
1002089	JCXFE-R 1x2x1,12 /š/-/	850	7.2	59	21
1005695	JCXFE-R 1x2x1,12 /ZE/š/čb cores numbered/	3,600	10.8	158	25
1002150	JCXFE-R 2x1,12 /o/-/	3,600	7.3	61	20
1003635	JCXFE-R 2x2x1,12 /m/-/	900	10.0	105	39
1002164	JCXFE-R 2x2x1,12 /o/-/	900	10.0	105	39
1003636	JCXFE-R 3x2x1,12 /m/-/	900	11.5	141	57
1004936	JCXFE-R 4x2x1,12 /m/-/	900	12.7	170	75
1004937	JCXFE-R 6x2x1,12 /m/-/	900	14.9	231	111
1005016	JCXFE-R 6x2x1,12 /o/-/	900	14.9	231	111
1005326	JCXFE-R 10x2x1,12 /m/-/	900	22.1	600	183
1005325	JCXFE-R 10x2x1,12 /o/-/	900	22.1	682	187
1002044	JCXFE-R 12x2x1,12 /o/-/	800	23.7	793	223
<b>1,38 mm</b>					

## derived variants

<b>0,5 mm</b>					
1003620	JCXFE-R 20x2x0,5 /WB/ZE/č/čb cores/	1,900	19.0	460	78
<b>0,8 mm</b>					
1002083	JCXFE-R 1x2x0,8 /WB/ZE/m/čb cores/	1,400	10.0	136	16
1002158	JCXFE-R 2x2x0,8 /WB/ZE/m/čb cores/	1,400	11.7	184	25
1002159	JCXFE-R 2x2x0,8 /ZE/m/-/	1,400	11.5	177	25
1004816	JCXFE-R 2x2x0,8 /ZE/š/-/	1,400	11.5	177	25
1004813	JCXFE-R 3x2x0,8 /ZE/m/-/	1,400	12.7	213	34
1002214	JCXFE-R 4x2x0,8 /st/o/-/	6,100	10.0	159	60
1004817	JCXFE-R 4x2x0,8 /ZE/m/-/	1,400	13.8	249	43
1002235	JCXFE-R 5x2x0,8 /WB/ZE/č/čb cores/	1,400	14.8	289	52
1002236	JCXFE-R 5x2x0,8 /ZE/m/-/	1,400	14.6	280	52
1002237	JCXFE-R 5x2x0,8 /ZE/m/čb cores/	1,400	14.6	280	52
1003873	JCXFE-R 5x2x0,8 /ZE/š/čb cores/	1,400	14.6	280	52
1002244	JCXFE-R 5x3x0,8 /WB/ZE/č/čbr cores/	1,100	19.5	464	61
1003672	JCXFE-R 5x4x0,8 /WB/ZE/o/-/	700	22.3	520	97
1002249	JCXFE-R 6x2x0,8 /st/o/-/	1,000	13.9	195	73



# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1004823	JCXFE-R 6x2x0,8 /ZE/m/-/	1,400	15.4	316	61
1003884	JCXFE-R 6x2x0,8 /ZE/š/čb cores/	1,400	15.4	316	61
1004819	JCXFE-R 8x2x0,8 /ZE/m/-/	1,400	16.9	380	79
1004854	JCXFE-R 8x2x0,8 /ZE/o/-/	1,400	16.9	380	79
1004818	JCXFE-R 8x2x0,8 /ZE/š/-/	1,400	16.9	380	79
1003760	JCXFE-R 10x2x0,8 /WB/ZE/č/čb cores/	1,400	18.3	450	97
1002019	JCXFE-R 10x2x0,8 /WB/ZE/m/čb cores/	1,400	18.3	450	97
1005000	JCXFE-R 10x2x0,8 /ZE/č/čb cores/	1,400	18.1	436	97
1004822	JCXFE-R 10x2x0,8 /ZE/m/-/	1,400	18.1	436	97
1002020	JCXFE-R 10x2x0,8 /ZE/m/čb cores/	1,400	18.1	436	97
1002039	JCXFE-R 12x2x0,8 /WB/ZE/m/čb cores/	1,400	19.9	532	115
1002040	JCXFE-R 12x2x0,8 /ZE/m/-/	1,400	19.7	518	115
1003875	JCXFE-R 12x2x0,8 /ZE/m/čb cores numbered/	1,400	19.7	516	115
1004826	JCXFE-R 12x2x0,8 /ZE/š/-/	1,400	19.7	518	115
1003872	JCXFE-R 12x2x0,8 /ZE/š/čb cores/	1,400	19.7	516	115
1004814	JCXFE-R 15x2x0,8 /ZE/š/-/	1,300	21.2	596	142
1002125	JCXFE-R 20x2x0,8 /st/o/-/	900	23.2	504	235
1002126	JCXFE-R 20x2x0,8 /WB/č/čb cores/	1,400	20.6	411	183
1004934	JCXFE-R 20x2x0,8 /WB/ZE/č/-/	1,100	23.7	750	187
1002127	JCXFE-R 20x2x0,8 /WB/ZE/č/čb cores/	1,100	23.7	751	187
1002128	JCXFE-R 20x2x0,8 /ZE/č/čb cores/	1,100	23.5	735	187
1005967	JCXFE-R 20x2x0,8 /ZE/m/-/	1,100	23.5	735	187
1003874	JCXFE-R 20x2x0,8 /ZE/m/čb cores/	1,100	23.5	735	187
1002129	JCXFE-R 20x2x0,8 /ZE/š/-/	1,100	23.5	735	187
1003883	JCXFE-R 20x2x0,8 /ZE/š/čb cores/	1,100	23.5	735	187
1002137	JCXFE-R 24x2x0,8 /WB/ZE/š/čb cores/	1,000	25.3	857	223
1002138	JCXFE-R 24x2x0,8 /ZE/m/-/	1,000	25.1	840	223
1005693	JCXFE-R 24x2x0,8 /ZE/m/čb cores numbered/	1,000	25.1	840	223
1005968	JCXFE-R 24x2x0,8 /ZE/š/-/	1,000	25.1	840	223
1003771	JCXFE-R 25x2x0,8 /WB/ZE/o/čb cores/	1,000	25.7	892	232
<b>1 mm</b>					
1002087	JCXFE-R 1x2x1 /ZE/š/-/	1,200	10.2	142	21
1002162	JCXFE-R 2x2x1 /WB/ZE/š/čb cores/	1,100	12.3	206	34
1002196	JCXFE-R 3x2x1 /ZE/č/-/	1,200	13.5	247	48
1002239	JCXFE-R 5x2x1 /WB/ZE/č/čb cores/	1,100	15.8	339	75
1002252	JCXFE-R 6x2x1 /ZE/m/-/	1,100	16.5	375	88
1002024	JCXFE-R 10x2x1 /WB/ZE/š/čb cores/	1,100	20.1	559	142
<b>1,12 mm</b>					
1002090	JCXFE-R 1x2x1,12 /WB/ZE/č/čb cores/	900	11.0	164	25
1002091	JCXFE-R 1x2x1,12 /WB/ZE/m/-/	900	11.0	164	25
1005227	JCXFE-R 1x2x1,12 /ZE/č/-/	3,600	10.8	158	25
1003888	JCXFE-R 1x2x1,12 /ZE/č/čb cores/	3,600	10.8	158	25

weak-current cables

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002092	JCXFE-R 1x2x1,12 /ZE/m/-/	3,600	10.8	158	25
1002095	JCXFE-R 1x2x1,12 /ZE/m/čb cores numbered/	3,600	10.8	160	25
1002093	JCXFE-R 1x2x1,12 /ZE/o/čb cores/	1,100	10.8	160	25
1002094	JCXFE-R 1x2x1,12 /ZE/š/-/	1,100	10.8	161	25
1002114	JCXFE-R 1x3x1,12 /WB/ZE/č/-/	3,600	11.5	186	34
1002115	JCXFE-R 1x3x1,12 /WB/ZE/č/čb cores/	3,600	11.5	186	34
1003637	JCXFE-R 1x3x1,12 /WB/ZE/m/čbr cores/	3,600	11.5	186	34
1004943	JCXFE-R 1x3x1,12 /ZE/o/-/	3,600	11.3	176	34
1005329	JCXFE-R 1x3x1,12 /ZE/o/čbr cores/	3,600	11.3	176	34
1004062	JCXFE-R 2x1,12 /WB/č/čb cores/	3,600	7.4	63	20
1004057	JCXFE-R 2x1,12 /WB/m/čb cores/	3,600	7.4	63	20
1005478	JCXFE-R 2x2x1,12 /WB/č/čb cores/	1,400	10.1	109	39
1002166	JCXFE-R 2x2x1,12 /WB/m/čb cores/	1,400	10.1	109	39
1002167	JCXFE-R 2x2x1,12 /WB/ZE/m/čb cores/	900	13.3	239	43
1002168	JCXFE-R 2x2x1,12 /WB/ZE/š/-/	900	13.3	239	43
1004824	JCXFE-R 2x2x1,12 /ZE/m/-/	850	13.2	236	43
1002169	JCXFE-R 2x2x1,12 /ZE/m/čb cores/	850	13.2	236	43
1002170	JCXFE-R 2x2x1,12 /ZE/š/-/	850	13.2	236	43
1003877	JCXFE-R 2x2x1,12 /ZE/š/čb cores/	850	13.2	236	43
1003879	JCXFE-V 2x2x1,12 /ZE/o/čb cores/	600	14.3	264	43
1005228	JCXFE-R 5x2x1,12 /ZE/č/-/	900	17.1	401	97
1004063	JCXFE-R 10x2x1,12 /WB/č/čb cores/	850	19.0	376	183
1004061	JCXFE-R 10x2x1,12 /WB/m/čb cores/	850	19.0	376	183
1002027	JCXFE-R 10x2x1,12 /WB/ZE/č/čb cores/	850	22.2	685	187
1005477	JCXFE-R 12x2x1,12 /WB/č/čb cores/	850	20.5	436	219
1004056	JCXFE-R 12x2x1,12 /WB/m/čb cores/	850	20.5	436	219
1002046	JCXFE-R 12x2x1,12 /WB/ZE/m/čb cores/	800	23.7	793	223
1005472	JCXFE-R 12x3x1,12 /WB/o/čbr cores/	600	25.4	620	327
1005484	JCXFE-R 20x2x1,12 /WB/č/čb cores/	700	25.4	668	363
1004060	JCXFE-R 20x2x1,12 /WB/m/čb cores/	700	25.4	668	363
1003419	JCXFE-R 20x2x1,12 /WB/ZE/č/čb cores/	700	28.6	1,153	367
1002141	JCXFE-R 24x2x1,12 /ZE/o/-/	600	30.8	1,334	439
<b>1,2 mm</b>					
1002098	JCXFE-R 1x2x1,2 /WB/ZE/m/čb cores/	800	11.2	171	27
1004999	JCXFE-R 1x2x1,2 /ZE/č/čb cores/	1,200	11.0	173	27
1002100	JCXFE-R 1x2x1,2 /ZE/m/čb cores/	1,200	11.0	173	27
1002172	JCXFE-R 2x2x1,2 /WB/ZE/š/čb cores/	800	13.5	248	47
1002173	JCXFE-R 2x2x1,2 /ZE/č/čb cores/	800	13.3	241	47
<b>1,38 mm</b>					
1002105	JCXFE-R 1x2x1,38 /WB/ZE/m/čb cores/	650	11.6	188	34
1005176	JCXFE-R 1x2x1,38 /ZE/č/čb cores/	850	11.5	186	34
1002106	JCXFE-R 1x2x1,38 /ZE/m/čb cores/	850	11.5	186	34

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXFE-R

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1005177	JCXFE-R 1x3x1,38 /ZE/m/čbr cores/	2,800	12.0	214	48
1002177	JCXFE-R 2x2x1,38 /ZE/m/-/	650	14.0	273	61
1005214	JCXFE-R 3x2x1,38 /st/o/-/	500	13.6	198	92
1002227	JCXFE-R 4x3x1,38 /st/WB/ZE/m/-/	350	24.7	810	180
1002228	JCXFE-R 4x3x1,38 /st/WB/ZE/m/čbr cores/DEP/	350	24.7	810	180
1002229	JCXFE-R 4x3x1,38 /WB/ZE/m/čbr cores/	500	22.8	700	169
1003876	JCXFE-R 5x2x1,38 /ZE/š/čb cores/	650	18.3	485	142
1002028	JCXFE-R 10x2x1,38 /WB/ZE/m/čb cores/	700	23.9	840	277

weak-current cables

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

## conductor parameters

conductor diameter mm	conductor cross-section  mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C Ohm/km					
		class 1	class 2	class 5	class 1	class 2	class 5
0,3	0,08	237	237	237	244	244	244
0,4	0,126	150	150	150	155	155	155
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,2	1,15	17,3	17,3	17,3	17,8	17,8	17,8
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21

class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper

class 2- stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter

class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JC2XFE-R

cables for free bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people. Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1001576	JC2XFE-R 1x2x0,5 /š/-/	1,200	6.6	48	13
1001584	JC2XFE-R 1x3x0,5 /š/čbr cores/	4,700	7.0	56	18
1001593	JC2XFE-R 2x2x0,5 /m/čb cores/	1,200	8.5	71	23
1001603	JC2XFE-R 4x2x0,5 /m/čb cores/	1,100	11.4	123	43
1001606	JC2XFE-R 4x3x0,5 /š/čbr cores/	900	15.3	181	63
1001610	JC2XFE-R 6x3x0,5 /š/čbr cores/	900	16.2	247	93
1001563	JC2XFE-R 10x2x0,5 /š/čb cores/	1,100	16.3	241	103
1001565	JC2XFE-R 12x2x0,5 /š/čb cores/	1,100	17.9	295	123
1001573	JC2XFE-R 16x3x0,5 /š/čbr cores/	900	23.5	509	243
1001587	JC2XFE-R 20x2x0,5 /š/čb cores/	1,100	22.2	442	203

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JC2XFE-R

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001588	JC2XFE-R 24x2x0,5 /m/čb cores/	1,117	24.0	513	243
<b>0,75 mm</b>					
1001594	JC2XFE-R 2x2x0,75 /m/čb cores/	1,000	9.5	91	31
1001600	JC2XFE-R 3x2x0,75 /m/čb cores/	1,000	11.0	120	45
1004923	JC2XFE-R 4x2x0,75 /č/čb cores/	1,000	12.2	146	59
1005479	JC2XFE-R 12x2x0,75 /č/čb cores/	1,000	19.4	360	171
1004906	JC2XFE-R 12x2x0,75 /m/čb cores/	1,000	19.4	360	171
1005777	JC2XFE-R 24x2x0,75 /č/čb cores/	900	26.0	635	339
1005480	JC2XFE-R 24x2x0,75 /m/čb cores/	900	26.0	635	339
<b>1 mm</b>					
1004071	JC2XFE-R 1x2x1 /č/-/	700	7.8	68	23
1005583	JC2XFE-R 1x2x1 /č/čb cores/	700	7.8	68	23
1003638	JC2XFE-R 1x2x1 /m/čb cores/	700	7.8	68	23
1001578	JC2XFE-R 1x2x1 /m/čb cores/	2,800	7.8	68	23
1001579	JC2XFE-R 1x2x1 /š/čb cores/	700	7.8	68	23
1005584	JC2XFE-R 1x3x1 /č/čbr cores/	2,800	8.7	91	33
1001585	JC2XFE-R 1x3x1 /m/čbr cores/	2,800	8.7	91	33
1005586	JC2XFE-R 2x2x1 /č/čb cores/	700	10.7	116	43
1001595	JC2XFE-R 2x2x1 /m/čb cores/	700	10.7	116	43
1005189	JC2XFE-R 2x2x1 /st/č/-/	650	13.6	221	48
1001601	JC2XFE-R 3x2x1 /m/čb cores/	700	12.4	155	63
1001604	JC2XFE-R 4x2x1 /m/čb cores/	700	13.9	189	83
1005190	JC2XFE-R 4x2x1 /st/č/-/	500	17.2	364	93
1001608	JC2XFE-R 6x2x1 /m/čb cores/	700	16.4	260	122
1001611	JC2XFE-R 6x3x1 /š/čbr cores/	500	20.5	418	183
1001618	JC2XFE-R 8x2x1 /m/čb cores/	700	18.8	346	163
1005594	JC2XFE-R 10x2x1 /č/čb cores/	700	20.6	411	203
1005292	JC2XFE-R 10x2x1 /st/č/čb cores numbered/	500	24.6	845	229
1005580	JC2XFE-R 10x3x1 /č/čbr cores/	500	26.1	587	303
1005582	JC2XFE-R 12x2x1 /č/čb cores/	700	22.3	482	243
1001566	JC2XFE-R 12x2x1 /m/čb cores/	700	22.3	482	243
1003779	JC2XFE-R 12x2x1 /o/-/	700	22.3	481	243
1001569	JC2XFE-R 12x3x1 /m/čbr cores/	500	26.7	678	363
1001574	JC2XFE-R 16x3x1 /m/čbr cores/	500	30.2	889	483
1001589	JC2XFE-R 24x2x1 /m/čb cores/	600	30.5	892	483
1003781	JC2XFE-R 24x2x1 /o/-/	600	30.5	892	483
1003780	JC2XFE-R 36x2x1 /o/-/	400	36.5	1,263	723
<b>1,5 mm</b>					
1005123	JC2XFE-R 1x2x1,5 /č/čb cores/	2,200	8.8	87	31
1001580	JC2XFE-R 1x2x1,5 /m/-/	2,000	8.5	85	28
1001581	JC2XFE-R 1x2x1,5 /m/čb cores/	2,200	8.8	87	31
1001582	JC2XFE-R 1x2x1,5 /š/rm cores/	2,200	8.8	90	31

weak-current cables

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JC2XFE-R

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003778	JC2XFE-R 1x3x1,5 /o/-/	2,500	7.8	82	34
1005124	JC2XFE-R 2x2x1,5 /č/čb cores/	2,200	11.6	140	59
1001596	JC2XFE-R 2x2x1,5 /m/čb cores/	2,200	11.6	140	59
1005128	JC2XFE-R 4x2x1,5 /č/čb cores/	2,200	15.2	234	115
1005129	JC2XFE-R 8x2x1,5 /č/čb cores/	1,500	20.6	429	227
1005130	JC2XFE-R 12x2x1,5 /č/čb cores/	500	24.5	605	339
1005243	JC2XFE-R 12x2x1,5 /m/čb cores/	500	24.5	605	339
1001568	JC2XFE-R 12x2x1,5 /š/čb cores/	500	24.5	605	339
1001572	JC2XFE-R 16x2x1,5 /m/čb cores/	500	27.7	772	451

## derived variants

1005593	JC2XFE-R 10x2x1 /st/č/čb cores/	500	24.6	845	229
1003311	JC2XFE-R 1x2x1 /ZE/o/-/	900	11.4	174	27

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

## conductor parameters

conductor diameter mm	conductor cross-section  mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C					
		Ohm/km					
		class 1	class 2	class 5	class 1	class 2	class 5
0,3	0,08	237	237	237	244	244	244
0,4	0,126	150	150	150	155	155	155
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,2	1,15	17,3	17,3	17,3	17,8	17,8	17,8
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21



# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JC5XFE-R

cables for free bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

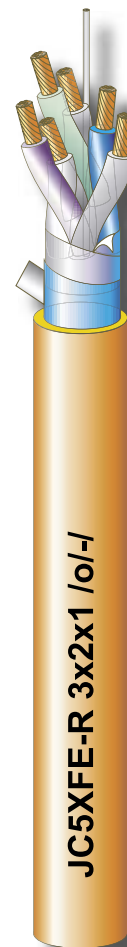
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,22 mm</b>					
1001771	JC5XFE-R 4x2x0,22 /o/-/	2,400	8.5	68	19
1003288	JC5XFE-R 15x2x0,22 /m/-/	1,200	15.6	189	65
<b>0,35 mm</b>					
1001726	JC5XFE-R 12x2x0,35 /š/-/	1,400	15.5	215	85
<b>0,5 mm</b>					
1003851	JC5XFE-R 1x2x0,5 /o/-/	1,200	6.6	46	13
1003850	JC5XFE-R 1x3x0,5 /o/-/	4,700	7.0	56	18
1001754	JC5XFE-R 2x2x0,5 /o/-/	1,100	8.0	73	20
1001766	JC5XFE-R 3x2x0,5 /o/-/	1,100	10.3	99	28
1001774	JC5XFE-R 4x2x0,5 /o/-/	1,200	11.4	118	37

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JC5XFE-R

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001779	JC5XFE-R 5x2x0,5 /o/-/	1,100	12.4	138	46
1001781	JC5XFE-R 6x2x0,5 /m/-/	1,100	13.3	157	54
1003462	JC5XFE-R 8x2x0,5 /o/-/	1,100	14.9	192	71
1005185	JC5XFE-R 10x2x0,5 /č/čb cores, numbered/	1,200	16.3	227	89
1003772	JC5XFE-R 10x2x0,5 /o/-/	1,200	16.3	227	89
1003818	JC5XFE-R 10x2x0,5 o/-/	1,200	16.3	227	89
1001743	JC5XFE-R 20x2x0,5 /š/-/	1,150	22.2	414	175
1 mm					
1001748	JC5XFE-R 2x1 /m/-/	3,000	7.7	62	20
1004884	JC5XFE-R 2x2x1 o/-/	1,000	7.6	64	20

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

## conductor parameters

conductor diameter mm	conductor cross-section  mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C					
		Ohm/km					
		class 1	class 2	class 5	class 1	class 2	class 5
0,3	0,08	237	237	237	244	244	244
0,4	0,126	150	150	150	155	155	155
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,2	1,15	17,3	17,3	17,3	17,8	17,8	17,8
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21

class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper

class 2- stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter

class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT

JCXKE-V

cables for fixed bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

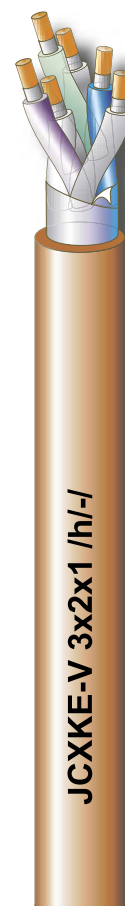
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT AND FIRE-PROOF

JCXFE-V

cables for fixed bedding

weak-current cables

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

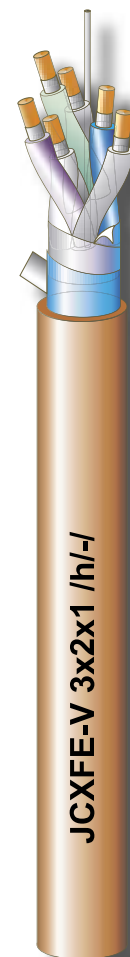
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>0,5 mm</b>					
1002322	JCXFE-V 2x2x0,5 /o/-/	1,600	7.7	55	10
1005207	JCXFE-V 3x2x0,5 /o/-/	1,600	8.8	67	13
1002361	JCXFE-V 5x2x0,5 /o/-/	1,600	11.1	102	20
1002364	JCXFE-V 6x2x0,5 /o/-/	1,600	11.7	115	24
1002280	JCXFE-V 10x2x0,5 /h/-/	1,600	14.4	163	38
1002294	JCXFE-V 15x2x0,5 /o/-/	1,600	16.9	219	55
<b>0,6 mm</b>					
1002311	JCXFE-V 1XNx0,6 /o/-/	4,000	7.7	58	13
1002325	JCXFE-V 2x2x0,6 /o/-/	1,400	7.9	58	13
<b>0,8 mm</b>					

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT AND FIRE-PROOF

JCXFE-V

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1002298	JCXFE-V 1x2x0,8 /o/-/	1,350	7.0	51	12
1005210	JCXFE-V 1x2x0,8 /r/-/	1,350	7.0	51	12
1002326	JCXFE-V 2x2x0,8 /o/-/	900	9.5	84	21
1005211	JCXFE-V 2x2x0,8 /r/-/	900	9.5	84	21
1002345	JCXFE-V 3x2x0,8 /o/-/	900	11.1	112	30
1002353	JCXFE-V 4x2x0,8 /o/-/	800	12.2	133	39
1005212	JCXFE-V 4x2x0,8 /r/-/	800	12.2	133	39
1002362	JCXFE-V 5x2x0,8 /o/-/	1,000	13.4	159	48
1002365	JCXFE-V 6x2x0,8 /o/-/	1,000	14.3	164	57
1002371	JCXFE-V 7x2x0,8 /o/-/	900	15.3	199	66
1002374	JCXFE-V 8x2x0,8 /o/-/	1,000	16.1	220	75
1002282	JCXFE-V 10x2x0,8 /o/-/	1,000	17.6	261	93
1002287	JCXFE-V 12x2x0,8 /o/-/	900	19.5	318	111
1002293	JCXFE-V 14x2x0,8 /o/-/	1,000	20.8	366	129
1002295	JCXFE-V 15x2x0,8 /o/-/	900	21.3	381	138
1002313	JCXFE-V 20x2x0,8 /o/-/	1,000	24.0	479	183
1002341	JCXFE-V 30x2x0,8 /o/-/	700	28.7	667	272
<b>1 mm</b>					
1002009	JCXFE-V 1x2x1 /m/-/	800	7.4	59	16
1002301	JCXFE-V 1x2x1 /o/-/	1,000	7.4	62	17
1002331	JCXFE-V 2x2x1 /m/-/	800	10.1	101	30
1002330	JCXFE-V 2x2x1 /r/-/	800	10.1	101	30
1002347	JCXFE-V 3x2x1 /o/-/	800	11.7	131	43
1002355	JCXFE-V 4x2x1 /o/-/	800	13.2	164	57
1002363	JCXFE-V 5x2x1 /r/-/	820	14.3	189	70
1002367	JCXFE-V 6x2x1 /o/-/	800	15.3	217	84
1002373	JCXFE-V 7x2x1 /o/-/	800	16.3	242	97
1002375	JCXFE-V 8x2x1 /o/-/	800	17.2	270	111
1002284	JCXFE-V 10x2x1 /r/-/	800	19.3	341	138
1002291	JCXFE-V 12x2x1 /o/-/	800	20.8	394	165
1002315	JCXFE-V 24x2x1 /o/-/	800	28.1	700	327
1002342	JCXFE-V 30x2x1 /o/-/	600	31.4	877	408
1003574	JCXFE-V 37x2x1 /o/-/	450	34.4	1,049	502
1002349	JCXFE-V 40x2x1 /o/-/	400	35.6	1,120	543
<b>1,12 mm</b>					
1002303	JCXFE-V 1x2x1,12 /o/-/	600	8.0	67	21
1002334	JCXFE-V 2x2x1,12 /o/-/	600	11.1	118	38
1003646	JCXFE-V 3x2x1,12 /o/-/	450	12.9	157	57
1003908	JCXFE-V 4x1,12 /r/črmž cores/	2,500	10.6	115	39
1002376	JCXFE-V 8x2x1,12 /o/-/	600	19.5	353	147
<b>1,2 mm</b>					
1002338	JCXFE-V 2x2x1,2 /o/-/	550	11.3	124	42
1002377	JCXFE-V 8x2x1,2 /o/-/	550	20.0	374	161

weak-current cables

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT AND FIRE-PROOF

JCXFE-V

cables for fixed bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
derived variants					
0,8 mm					
1005268	JCXFE-V 1x2x0,8 /ZE/o/-/	1,200	10.6	148	16
1005337	JCXFE-V 2x2x0,8 /st/ZE/o/-/	700	13.7	252	31
1002329	JCXFE-V 2x2x0,8 /ZE/o/-/	900	12.7	206	25
1002346	JCXFE-V 3x2x0,8 /ZE/o/-/	1,000	14.2	254	34
1002354	JCXFE-V 4x2x0,8 /st/o/-/	700	15.5	279	49
1005338	JCXFE-V 6x2x0,8 /st/ZE/o/-/	700	19.5	517	77
1003675	JCXFE-V 6x3x0,8 /sto/ZE/o/-/	700	24.3	762	278
1002283	JCXFE-V 10x2x0,8 /ZE/o/-/	1,000	21.2	562	97
1005346	JCXFE-V 12x2x0,8 /st/ZE/m/-/	700	24.9	845	147
1 mm					
1003677	JCXFE-V 2x2x1 /ZE/mč/-/	700	13.3	230	34
1,12 mm					
1002304	JCXFE-V 1x2x1,12 /WB/ZE/č/čb cores/	900	11.8	186	25
1002305	JCXFE-V 1x2x1,12 /WB/ZE/m/-/	900	11.8	186	25
1002335	JCXFE-V 2x2x1,12 /WB/ZE/o/čb cores/	1,500	14.5	275	43
1002336	JCXFE-V 2x2x1,12 /WB/ZE/š/-/	1,500	14.5	275	43
1,38 mm					
1002339	JCXFE-V 2x2x1,38 /WB/ZE/o/čb cores/	500	15.2	314	61
1003885	JCXFE-V 3x1,38 /ZE/o/-/	2,000	12.8	228	48
JCXFOE-V					
1002448	JCXFOE-V 2x2x0,8 /o/-/	1,000	12.2	192	65
1002454	JCXFOE-V 4x2x0,8 /o/-/	1,000	14.9	280	93
1002443	JCXFOE-V 12x2x0,8 /o/-/	1,000	22.1	612	199
1002446	JCXFOE-V 20x2x0,8 /o/-/	800	26.7	888	290
1003266	JCXFOE-V 2x2x1 /o/-/	800	12.8	215	76
1003231	JCXFOE-V 2x2x1,78 /o/-/	400	15.7	352	150

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50



# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT AND FIRE-PROOF

JC2XFE-V; JC5XFE-V

cables for free bedding

## use

For their fire-breaking features and especially for their halogen-free composition, the fire-non-effusing cables are designed mainly for the use in premises with higher threat of fire and premises with higher presence of people.

Cables can be used in environment with the threat of fire and can be installed even on flammable surface, for sparking safe circuits. Other use must be agreed with the cable producer.

Cables are designed for the transmission of communication network signals up to LAN level cat. 3 in all telecommunication and signal circuits up to operating voltage of 100 V. They are mostly used for RS 485 and RS 232, EZS and EPS convertors. Cables can be used for MaR circuits, weak-current mains, telecommunication and automation circuits etc.

## features

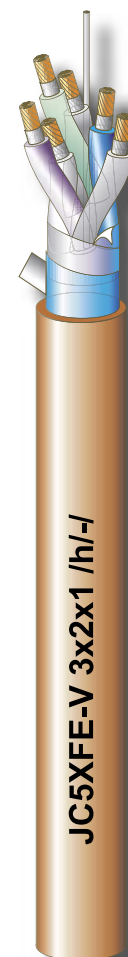
- min. semi-diameter 10 x cable diameter
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -15°C if agreed with the producer

Applies for cables in single-, double- triple-, quad-design etc.

- Colour core marking according to ČSN IEC 189-2 or numbered according to order or according to customer request. On request from the customer cores can also be delivered in black and white (and red in triples) with the number of the pair.

Standard cable delivery in orange or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



weak-current cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants



## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
<b>JC2XFE-V</b>					
1001624	JC2XFE-V 1x2x1 /m/-/	500	8.6	74	23
1001625	JC2XFE-V 1x2x1 /m/čb cores/	500	8.6	74	23
1003251	JC2XFE-V 5x2x1 /o/čb cores/	450	17.1	255	103
<b>JC5XFE-V</b>					
1001802	JC5XFE-V 2x2x0,5 /o/-/	800	10.1	91	20
1001793	JC5XFE-V 1x2x0,75 /m/-/	700	7.6	58	16
1001794	JC5XFE-V 1x2x0,75 /o/-/	3,000	7.6	58	16
1001815	JC5XFE-V 4x2x0,75 /m/-/	700	13.6	166	55
1001816	JC5XFE-V 6x2x0,75 /m/-/	700	15.9	223	82
1001819	JC5XFE-V 8x2x0,75 /m/-/	700	18.3	297	109

# WEAK-CURRENT CABLES up to 500 V

FIRE-RETARDANT AND FIRE-PROOF

JC2XFE-V; JC5XFE-V

cables for free bedding

## brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1001795	JC5XFE-V 1x2x1 /o/-/	2,200	8.4	69	20
1001798	JC5XFE-V 1x3x1 /m/-/	3,300	8.0	73	23
1001804	JC5XFE-V 2x2x1 /m/-/	500	11.7	126	37
1001812	JC5XFE-V 3x2x1 /m/-/	500	13.6	165	55
1001797	JC5XFE-V 1x2x1,5 /o/-/	1,900	8.8	80	28
1001806	JC5XFE-V 2x2x1,5 /m/-/	500	12.3	147	53
1001813	JC5XFE-V 3x2x1,5 /m/-/	500	14.4	197	78
derived variants					
1001833	JC5XFE-V/LOCA 2x2x0,5 /m/-/	800	12.5	169	20

## dimension variants

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
0,3	-	2	1 - 150
0,3	-	3	1 - 125
0,3	-	4	1 - 100
0,4	-	2	1 - 150
0,4	-	3	1 - 125
0,4	-	4	1 - 100
0,5	0,22	2	1 - 150
0,5	0,22	3	1 - 125
0,5	0,22	4	1 - 100
0,6	0,35	2	1 - 150
0,6	0,35	3	1 - 125
0,6	0,35	4	1 - 100
0,8	0,5	2	1 - 150
0,8	0,5	3	1 - 125
0,8	0,5	4	1 - 100

core diameter in mm	core cross-section in mm <sup>2</sup> (class 2 and 5)	number of cores in element	number of elements
1	0,75	2	1 - 150
1	0,75	3	1 - 125
1	0,75	4	1 - 100
1,12	1	2	1 - 150
1,12	1	3	1 - 125
1,12	1	4	1 - 100
1,2	-	2	1 - 125
1,2	-	3	1 - 100
1,2	-	4	1 - 75
1,38	1,5	2	1 - 100
1,38	1,5	3	1 - 75
1,38	1,5	4	1 - 50
1,78	2,5	2	1 - 100
1,78	2,5	3	1 - 75
1,78	2,5	4	1 - 50

## conductor parameters

conductor diameter mm	conductor cross-section  mm²	for Cu conductors			for CuSn conductors		
		maximum conductor resistance at 20°C					
		Ohm/km					
		class 1	class 2	class 5	class 1	class 2	class 5
0,3	0,08	237	237	237	244	244	244
0,4	0,126	150	150	150	155	155	155
0,5	0,22	96	96	96	99	99	99
0,6	0,35	53	53	53	56	56	56
0,8	0,5	36	36	39	36,7	36,7	40,1
1	0,75	24,5	24,5	26	24,8	24,8	26,7
1,12	1	18,1	18,1	19,5	18,2	18,2	20
1,2	1,15	17,3	17,3	17,3	17,8	17,8	17,8
1,38	1,5	12,1	12,1	13,3	12,2	12,2	13,7
1,78	2,5	7,41	7,41	7,98	7,56	7,56	8,21

class 1 - full conductors with round cross-section made of bare or metal-plated annealed copper

class 2- stranded uncondensed conductors with round cross-section made of bare or metal-plated annealed copper, wires of each conductor have the same diameter

class 5 - flexible conductors made of bare or metal-plated annealed copper, wires of each conductors have the same diameter

# DATA CABLES

data cables




# DATA CABLES

## glossary of terms


### product features


**halogen-free** - the components of a halogen-free product are made of exclusively halogen-free material. If a halogen-free product is on fire, no corrodible gasses are produced. Cables are supposed to be halogen-free if they meet the recommendations of the ČSN EN 50267 standard. These products usually meet other standards for a lower production of smoke under fire conditions (ČSN EN 50268).

**for places with the threat of explosion** thanks to their construction and materials used, the product does not transmit axially dangerous vapours

 the ESČ sign stands for the compliance between the features of the marked products with the standards on electrical safety.

**sparking-safe circuits** up to not produce a dangerous electrical charge level in its environment

**fire non-effusing** (product marked by ) has an enhanced resistance to the effect of flame under fire conditions of a bundle. The products marked by this sign must meet the ČSN EN 50266 A F/R, A, B, C or D. In this case, the letter suffix stands for a different testing methodology varying mainly in the time for which the flame effects the cable and in the number of non-metal parts in the sample. The marking -R meets mainly the standard in class A (other marking -F/R, -R, -R/B, -R/C, -R/D)

**fire-proof** (product marked by ) a product with insulation integrity with enhanced resistance to flame during a test according to ČSN IEC 60 331, with a given gasflow, the dimensions of the burner and the temperature higher than 750°C

**LOCA** maximum project accident on a NPP, the cable is resistant to ionizing radiation

**E-90** cables with retained functionality E 90 according to DIN 4102-12, in combination with cable system complying with the same requirements

**E - 30** cables with retained functionality E 30 according to DIN 4102-12, in combination with cable system complying with the same requirements

### identification of standards

**ASTM** American standard of testing materials (USA)

**ANSI** American national standards institute (USA)

**BS** British standard (Great Britain)

**CEN** European Committee for Standardization (Brussels) - the abbreviation is derived from the French name of the commity: Comité Européen de Normalisation, established in 1975

**ČSN** Czech national standard

**ČSN EN** Czech version of a European standard

**ČSN IEC** Czech version of an international standard

**DEP** Design and Engineering Practise - Shell construction standards

**DIN** Deutsches institut für normung (Germany) - German standards

**EN** European standards

**GOST** - Soviet standards

**IEC** International Electrotechnical Commission - (Geneve), established in 1906 - international standards

**IEEE** The Institute of Electrical and Electronics Engineers

**ISO** International Organization for Standardization (Geneve) established in 1947

**MESC** Material and Equipment Standards and Code - Shell construction standards

**NFC** Normes Françaises Class C (France) - French standards

**VDE** Verein Deutscher Elektroingenieure (Germany) - German standards

### material identification

**HDPE** low-pressure polyethylen

**LDPE** high-pressure polyethylen

**PE** polyethylen

**PVC** polyvinilchlorid

**XLPE** cross-linked polyethylen

### cable circuits

**CCTV** closed television circuit

**EPS** Electronic fire alarm system

**GAS** circuits for gas detection

**MaR** measurement and regulation circuits



# DATA CABLES

## icons



Maximum operating temperature at fixed bedding



Minimum operating temperature at fixed bedding



Cables for indoor use



Cables for outdoor use



Cables designed for burial into ground



Cables with low smoke effusion at combustion, halogen-free



Self-extinctive cables according to IEC 60 332-1; EN 50 265-2-1



Fire-retardant cables according to IEC 60 332-3-22 cat. A; EN 50 266-2-2 cat. A



Fire-proof cables according to IEC 60 331



Cables resistant to solutions pH 4-11



Cables meet the requirements of refineries, generally stated in MESC SPEC 68.51/001 and DEP 32.37.20.10-Gen. documents



Cables are designed for the environment with the threat of explosion Zone 0;1;2 at the compliance with the requirements of sparking security according to IEC 79-11.

### derived variants



**ZE** - cables equipped with light armour, with FeZn braiding at 75% overlap



**AR** - cables equipped with armour made of Al wrapping or of FeZn wires and simultaneous binding wind by FeZn tape.



**LOCA** - cables designed for bedding in environment with higher level of ionizing radiation. Primarily, these cables are qualified for hermetic zones of nuclear power stations..



Self-supporting cable construction either with a supplementary steel wire or tensile elements installed in the cable core



Cable construction complemented with protection against rodents.

# DATA CABLES

## product overview

### PVC COAXIAL CABLES

50 OHM	125
75 OHM	125

### COAXIAL CABLES FIRE-RETARDANT AND FIRE-PROOF

50 OHM	126
75 OHM	126

### OPTICAL CABLES OPTEX®

Optical cables marking	128
Optical cables	129

All products comply with the 2002/95/EC RoHS regulation that bannes the use of certain dangerous substances in electrical and electronical devices.



# PVC COAXIAL CABLES

## 50, 75 OHM

cables for fixed and free bedding

### use

Classic PVC coaxial cables are designed for wide use in high-frequency signal transmission.

### features

- min. bending semidiameter generally 10 x cable diameter,
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -5°C if agreed with the producer

Standard cable delivery in orange or black or according to order.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



### derived variants



### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	Cu weight in cable
1003074	VCCJY 50-7,7 /č/-/	7,100	10.2	150	74
1003108	VCCKY 75-2,95 /č/-/	25,000	4.8	29	6
1003532	VCCJY 75-3,7 /č/-/	26,000	6.1	41	12
1003520	VCCKY 75-3,7 /o/RG-59/	10,000	6.0	37	9
1003529	VLEOY 75-3,7 /č/-/	25,000	6.0	54	22
1003536	VCCJY 75-4,8 /č/-/	17,000	7.3	63	18
1003531	VCCKY 75-4,8 /č/-/	10,000	6.9	51	13
1003537	VCCJY 75-7,25 /č/-/	10,000	10.8	109	32
1003535	VCCKY 75-7,25 /č/-/	10,000	10.3	95	22
1003528	VLEOY 75-7,25 /č/-/	4,000	10.3	132	41
1004831	VLCAJ 75-9 /č/-/	3,700	14.0	241	76
1003533	VLCAJ 75-9 /ž/-/	3,700	14.0	241	76

### dimension variants

Standard dielectric diameter from 2,95 to 16 mm, with characteristic impedance 50 Ohm, 75 Ohm and special according to customer's request plus RG standards replacement.



data cables

# COAXIAL CABLES

## FIRE-RETARDANT AND FIRE-PROOF

### 50, 75 OHM

cables for fixed and free bedding

#### use

Coaxial cables, fire-non-effusing and fire-proof, are designed mainly for the use in places with higher threat of fire and premises with higher presence of people especially for their fire-resistive features and namely for their alogen-free composition. They are designed for the use in high-rise buildings and tunnel constructions.

#### features

- min. bending semidiameter generally 10 x cable diameter,
- max. tensile stress 50 N/mm<sup>2</sup> Cu
- temperature at bedding up to -5°C if agreed with the producer

Standard cable delivery in orange or black or according to order.

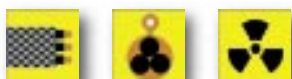
Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



#### derived variants



#### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km	váha Cu v kabelu
1003272	VCCJE-R 50-3,8 /o/-/	26,100	6.1	53	22
1003822	VCXCE-R 50-4,8 /ZE/o/-/	6,900	11.1	174	35
1003089	VLXOE-R 50-5,6 /ZE/č/-/	5,500	11.6	200	55
1003083	VCXOE-V 50-6,4 /o/-/	3,500	9.2	138	67
1003065	VCCJE-R 50-7,25 /o/-/	8,400	9.9	146	68
1003066	VCCJE-R 50-7,25 /ZE/o/-/	4,200	13.5	277	18
1003071	VCCJE-V 50-7,25 /o/-/	7,400	10.4	145	61
1003081	VCXJE-R 50-7,25 /o/-/	8,200	10.4	161	20
1003087	VLCJE-R 50-7,25 /o/-/	8,400	9.9	131	52
1003090	VLXOE-R 50-7,25 /o/RG-213/	6,000	10.2	183	78

# COAXIAL CABLES

## FIRE-RETARDANT AND FIRE-PROOF

### 50, 75 OHM

cables for fixed and free bedding

#### brief product overview

order number	cable type	maximum production length	průměr kabelu	cable weight kg/km	váha Cu v kabelu
1003193	VCCOE-R 75-2,95 /r/-/	25,000	4.6	34	17
1003067	VCCJE-R 75-3,7 /o/RG-59/	27,000	6.1	44	12
1003075	VCCKE-V 75-3,7 /o/RG-59/	16,000	6.0	39	8
1003103	VCXAE-R 75-3,7 /o/-/	25,900	6.1	54	3
1003078	VCXJE-R 75-3,7 /o/-/	25,000	6.0	42	11
1003068	VCCJE-R 75-4,8 /o/RG-6/	17,000	6.9	56	17
1003079	VCXJE-R 75-4,8 /o/-/	3,200	7.5	64	13
1003069	VCCJE-R 75-5,6 /o/-/	13,000	8.1	74	20
1003076	VCXFE-R 75-7 /č/-/	9,000	10.3	165	49
1003070	VCCJE-R 75-7,25 /o/-/	4,000	10.0	113	32
1003091	VSXOE-R 75-7,25 /o/RG-11/	8,000	10.3	153	47
1003080	VCXJE-R 75-7,25 /o/-/	2,000	9.9	107	23
1003086	VLCAE-R 75-9 /o/-/	4,000	12.9	242	94
1003063	VCCCE-R 75-11,5 /o/-/	3,500	15.0	253	63

data cables

#### dimension variants

Standard dielectric diameter from 2,95 to 16 mm, with characteristic impedance 50 Ohm, 75 Ohm and special according to customer's request plus RG standards replacement.

## cable marking

Cable marking consists of a group of letters.

**OPTEX®** - a patented design of Kabelovna Kabex a.s..

1. identification
  - J - cables for indoor use
  - A - cables for outdoor use
  - J/A - cables for indoor and outdoor use
2. secondary protection type
  - V – fibres in tight (semitight) secondary protection
  - D – loose multifibre secondary protection filled with gel
  - W – loose multifibre secondary protection non-filled
3. filling material
  - F - filled cable core
  - Q - water-blocking layer (tape, fibres...)
4. construction
  - (ZN) - dielectric tensile elements below the jacket
  - (ZN)B - enforced layer of tensile elements (non-metallic protection against rodents)
  - 2YB - PE inner jacket + armouring by steel wires
  - (SR) - armouring by crimped steel tape
  - (L) - Al tape (always in combination with jacket)
5. further protective cover
  - 2Y - halogen-free PE protective cover (inner jacket)
6. jacket
  - 2Y - halogen-free PE jacket (cable with this jacket is not of R-type)
  - H - halogen-free non-flammable jacket
7. self-supporting design
  - T -suspension design, construction with non-metal tensile elements
  - T8 - suspension design, type „8” construction - steel-rope in cable jacket
8. number of tubes x number of fibres in cable -  $n_t \times n_v$   
(if  $n_t$  value is not given, the fibres are divided by the simplest cable construction)
9. optical fibre type and core diameter / functional protection diameter
  - E... / ... - single-mode fibre
  - E9/125 – single-mode fibre, core diameter 9µm / functional protection diameter 125µm
  - G... / ... - gradient fibre
  - G62,5/125 – gradient fibre, core diameter 62,5µm /functional protection diameter 125µm
  - G50/125 – gradient fibre, core diameter 50µm / functional protection diameter 125µm
  - S... / ... – fibre with refraction index step change
  - K... / ... – fibre with refraction index step change - semi-plastic (PCS)
  - ... / ... - other fibre type according to customer request
10. fire-proof rate
  - V - the cable is fire-non-effusing according to ČSN EN 50266-2-2 and fire-proof according to ČSN EN 50266-2-2 and ČSN IEC 60331-25
  - R - the cable is fire-non-effusing according to ČSN EN 50266-2-2
11. supplementary marking
  - /ZE/ - FeZn wires cable braiding - mechanical protection
  - /--/ - indicates the colour of the cable jacket, e.g. č – black, š – grey, m – blue, o – orange, mo – blue-orange, blue stripe (30%) orange (70%) , om – orange-blue, orange stripe (30%) blue (70%)
  - /--/ - for supplementary and altering information, e.g.: change in cable marking, following individual needs, requested and agreed change in construction etc. (e.g. less secondary protection)

use

Optical cables, fire non-effusing, and fire non-effusing and fire-proof are designed for outdoor and indoor installations of transmission networks in telecommunication, cable television and computer networks, especially in places with a higher threat of fire and with the presence of a higher number of people thanks to their fire-breaking features and especially for their halogen-free composition. They are designed for the use in high-rise buildings and tunnel constructions.

features

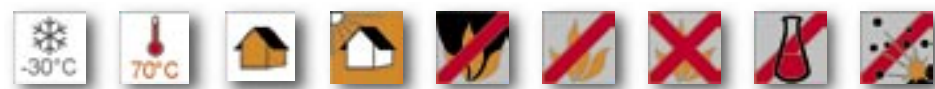
min. bending semi-diameter 20 x cable diameter  
max. tensile stress 2500 N in basic design

colour marking

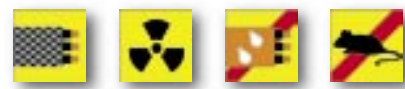
Standard cable delivery in orange or according to order.

Cables are delivered on cable reels up to the diameter of 1500 mm.

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



derived variants



data cables

brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km
1003754	A-D(ZN)2Y 12x12 E9/125-V /WB/o/-/	5,900	16.3	1,093
1003755	A-D(ZN)2Y 1x12 E9/125-V /WB/o/-/	12,000	6.8	1,034
1003743	A-D(ZN)2Y 6x12 E9/125-V /WB/o/-/	5,900	11.8	1,071
1003738	A-DQ(ZN)H 12x12 E9/125-V /h/MiDia/-/	5,400	12.2	1,067
1003750	A-DQ(ZN)H 6x12 E9/125-V /h/-/	5,900	11.8	129
1003684	A-DQ(ZN)H 8x12 E9/125-V /h/-/	4,600	13.0	1,073
1003711	A-DQ(ZN)H 8x12 E9/125-V /o/MiDia/	8,400	10.3	1,056

### OPTEX® products - examples

#### OPTEX® A-D(ZN)H 6x24E9/125-V /o/-/ TP Nr. KBX 3/96

Outdoor optical cable, fire-proof with 144 single-mode fibres, orange jacket, without supplementary inf. Dielectric tensile elements below the jacket. Jacket made of fire-retardant LSZH material.

#### OPTEX® J/A-V(ZN)(SR)H 96G62,5/125-R /m/-/ TP Nr. KBX 3/96

Cable for indoor and outdoor use, fire-non-effusing with 96 gradient fibres, blue jacket, without supplementary inf.

Dielectric tensile elements below the jacket in combination with armouring crimped tape ensures good pressure and impact resistance and good protection against rodents. Jacket made of fire-retardant LSZH material.

#### OPTEX® J-DQ(ZN)HT 8G50/125-R /o/-/ TP Nr. KBX 3/96

Indoor optical cable, fire-non-effusing with 8 gradient fibres, orange jacket, without supplementary inf. Dielectric tensile elements below the jacket. Self-supporting construction. Jacket made of fire-retardant LSZH material.

#### OPTEX® A-DQ(ZN)2YH 48G50/125-R /ZE/o/-/ TP Nr. KBX 3/96

Indoor optical cable, fire-non-effusing with 48 gradient fibres, orange jacket, without supplementary inf. Dielectric tensile elements below the jacket. FeZnbraiding as mechanical protection and protection against rodents. Inner jacket below the braiding made of PE and outer jacket made of fire-retardant LSZH material.

#### OPTEX® J/A-WF2YBH 6x8E9/125-V /o/-/ TP Nr. KBX 3/96

Cable for indoor and outdoor use, fire-non-effusing with 48 single-mode fibres, orange jacket, without supplementary inf. Armoured by steel wires as mechanical protection. Inner jacket below armouring made of PE and outer jacket made of fire-retardant LSZH material.

#### OPTEX® J/A-DQ(ZN)2Y 2G62,5/125 /m/-/ TP Nr. KBX 3/96

Cable for indoor and outdoor use, with 2 gradient fibres, blue jacket, without supplementary inf. . Dielectric tensile elements below the jacket. Jacket made of PE material.

### standard used fibres

#### Single-mode fibre E (SM)

	for wavelength	mode field diameter	function cover diameter	primary protection diameter	attenuation	chromatic dispersion ratio
E9/125	at 1310nm	9,2±0,4µm	125±3µm	250±15µm	≤ 0,45 dB/km	≤ 3,5 ps / nm.km)
	at 1550nm	8±0,4µm			≤ 0,33 dB/km	≤ 18 ps / (nm.km)

#### multi-mode gradient fibre (G)

	core diameter	function cover diameter	primary protection diameter	attenuation	zone width	numeric aperture
G50/125	50±3µm	125±3µm	250±15µm	at 850 nm ≤ 3 dB/km at 1300 nm ≤ 0,9 dB/km	at 850 nm ≤ 300 MHz.km at 1300 nm ≤ 600 MHz.km	0,200±0,015
G62,5/125	62,5±3µm	125±3µm	250±15µm	at 850 nm ≤ 3,2 dB/km at 1300 nm ≤ 1 dB/km	at 850 nm ≤ 160 MHz.km at 1300 nm ≤ 500 MHz.km	0,275±0,015



# SPECIAL CABLES

special cables

# SPECIAL CABLES

## glossary of terms


### product features



**halogen-free** - the components of a halogen-free product are made of exclusively halogen-free material. If a halogen-free product is on fire, no corrodible gasses are produced. Cables are supposed to be halogen-free if they meet the recommendations of the ČSN EN 50267 standard. These products usually meet other standards for a lower production of smoke under fire conditions (ČSN EN 50268).

**for places with the threat of explosion** thanks to their construction and materials used, the product does not transmit axially dangerous vapours

**the EŠ sign** stands for the compliance between the features of the marked products with the standards on electrical safety.

**sparking-safe circuits** cables are designed for environments with the threat of fire Zones 0;1;2 provided that the conditions of sparking safety according to IEC 79-11 are respected

**fire non-effusing** (product marked by ) has an enhanced resistance to the effect of flame under fire conditions of a bundle. The products marked by this sign must meet the ČSN EN 50266 A F/R, A, B, C or D. In this case, the letter suffix stands for a different testing methodology varying mainly in the time for which the flame effects the cable and in the number of non-metal parts in the sample. The marking -R meets mainly the standard in class A (other marking -F/R, -R, -R/B, -R/C, -R/D)

**fire-proof** (product marked by  ) a product with insulation integrity with enhanced resistance to flame during a test according to ČSN IEC 60 331, with a given gasflow, the dimensions of the burner and the temperature higher than 750°C

**LOCA** maximum project accident on a NPP, the cable is resistant to ionizing radiation

**E-90** cables with retained functionality E 90 according to DIN 4102-12, in combination with cable system complying with the same requirements

**E - 30** cables with retained functionality E 30 according to DIN 4102-12, in combination with cable system complying with the same requirements

### identification of standards

**ASTM** American standard of testing materials (USA)

**ANSI** American national standards institute (USA)

**BS** British standard (Great Britain)

**CEN** European Committee for Standardization (Brussels) - the abbreviation is derived from the French name of the commity: Comité Européen de Normalisation, established in 1975

**ČSN** Czech national standard

**ČSN EN** Czech version of a European standard

**ČSN IEC** Czech version of an international standard

**DEP** Design and Engineering Practise - Shell construction standards

**DIN** Deutsches institut für normung (Germany) - German standards

**EN** European standards

**GOST** - Soviet standards

**IEC** International Electrotechnical Commission - (Geneve), established in 1906 - international standards

**IEEE** The Institute of Electrical and Electronics Engineers

**ISO** International Organization for Standardization (Geneve) established in 1947

**MESC** Material and Equipment Standards and Code - Shell construction standards

**NFC** Normes Françaises Class C (France) - French standards

**VDE** Verein Deutscher Elektroingenieure (Germany) - German standards

### material identification

**HDPE** low-pressure polyethylen

**LDPE** high-pressure polyethylen

**PE** polyethylen

**PVC** polyvinilchloride

**XLPE** cross-linked polyethylen

### cable circuits

**CCTV** closed television circuit

**EPS** Electronic fire alarm system

**GAS** circuits for gas detection

**MaR** measurement and regulation circuits

# SPECIAL CABLES

## icons



Maximum operating temperature at fixed bedding



Minimum operating temperature at fixed bedding



Cables for indoor use



Cables for outdoor use



Cables designed for burial into ground



Cables with low smoke effusion at combustion, halogen-free



Self-extinctive cables according to IEC 60 332-1; EN 50 265-2-1



Fire-retardant cables according to IEC 60 332-3-22 cat. A; EN 50 266-2-2 cat. A



Fire-proof cables according to IEC 60 331



Cables resistant to solutions pH 4-11



Cables meet the requirements of refineries, generally stated in MESC SPEC 68.51/001 and DEP 32.37.20.10-Gen. documents



Cables are designed for the environment with the threat of explosion Zone 0;1;2 at the compliance with the requirements of sparking security according to IEC 79-11.

### derived variants



**ZE** - cables equipped with light armour, with FeZn braiding at 75% overlap



**AR** - cables equipped with armour made of Al wrapping or of FeZn wires and simultaneous binding wind by FeZn tape.



**LOCA** - cables designed for bedding in environment with higher level of ionizing radiation. Primarily, these cables are qualified for hermetic zones of nuclear power stations..



Self-supporting cable construction either with a supplementary steel wire or tensile elements installed in the cable core

# SPECIAL CABLES

## product overview

### COMPENSATION AND THERMOCOUPLE LINES

Variants	135
Marking chart	136
KX	138
JX	142

### SPECIAL CABLES BESY

Besy	143
------	-----

### CABLES FOR NUCLEAR ENERGETICS

LOCA	144
------	-----

### FLEXIBLE AND HIGHLY FLEXIBLE CABLES

PURFLEX®	145
ULTRAFLEX®	146
ULTRAFLEX®-EL	147

All products comply with the 2002/95/EC **RoHS** regulation that bans the use of certain dangerous substances in electrical and electronical devices.



# COMPENSATION AND THERMOCOUPLE LINES

FIRE-RETARDANT AND FIRE-PROOF

KX;JX;Chromel-Kopel; Chromel-Alumel

cables for fixed and free bedding

Cables are designed for the transmission of signals at the nominal voltage of 500 V ef in the environment according to ČSN 33 2000-3. Extension and compensation lines are used for electrical connections of open branches of thermocouples and reference connections in applications when thermocouple conductors are not directly connected with the reference connection.

**Extension lines are produced of conductors of the same nominal composition** as the appropriate thermocouple. They are marked with the letter X following the thermocouple marking, e.g. JX as well as of conductors according to GOST and they are marked by the specific type of conductor material.

Compensation cables are made of conductors of different composition than the appropriate thermocouple. They are marked with the letter C following the thermocouple marking. e.g. KC. For one type of thermocouple there can be different types of alloys that can be distinguished by supplementary letters, e.g. KCA and KCB, as well as of conductors according to GOST and they are marked by the specific type of conductors.

**operating temperature: from - 50°C to + 90°C**

**resistivity:** Cables are resistant to oils and oil products according to the **ASTM 2 standard**.

Minimum operating time of cables according to these TP when features of non-metal elements can fall below the maximum level to which the cable is defined as operable is 40 years.

## Colour marking

**Cable jacket is in colours according to the above mention information:**

In must be blue in sparking safe circuits for all thermocouple designs.

On customer's request, these cables can be marked as on the outer blue jacket by a colour stripe according to the appropriate type of the thermocouple (see order example: e.g.: /om/ - orange-blue, 30% of the jacket surface in orange stripe, the remaining part (70%) obligatory blue).

TP apply for cable designs with FeZn braiding by armouring wires, with longitudinal armouring by FeZn tape, with protective barrier against the leakage of liquids, overall shielded and element shielded in combination among one another and with all previously listed designs.

## dimension variants

core diameter inmm	core cross-section in mm <sup>2</sup> (tř. 2 a 5)	number of elements
0,2	---	1 - 150
0,3	---	1 - 150
0,4	---	1 - 150
0,5	0,22	1 - 150
0,6	0,35	1 - 150
0,7	---	1 - 150
0,8	0,5	1 - 150
1	0,75	1 - 150
1,12	1	1 - 150
1,2	---	1 - 125
1,38	1,5	1 - 100
1,5	1,75	1 - 100
1,78	2,5	1 - 100
2	---	1 - 100
2,26	4	1 - 75
2,76	6	1 - 75
3	---	1 - 75
3,2	---	1 - 50
3,57	10	1 - 50
4	---	1 - 30
4,5	16	1 - 25
5	---	1 - 25

core diameter inmm	limit tolerance in mm	number of elements
0,2	± 0,01	1 - 150
0,3		1 - 150
0,4	+ 0,015 - 0,01	1 - 150
0,42		1 - 150
0,45		1 - 150
0,5		1 - 150
0,52		1 - 150
0,55		1 - 150
0,57		1 - 150
0,6	+ 0,02 - 0,01	1 - 150
0,67		1 - 150
0,7		1 - 150
0,8		1 - 150
0,9		1 - 150
1,0	± 0,02	1 - 150
1,1		1 - 150
1,13		1 - 150
1,2		1 - 125
1,4		1 - 100
1,6		1 - 100
1,76		1 - 100
2,0		1 - 100
2,2		1 - 75
2,25		1 - 75
2,5		1 - 75

core diameter inmm	limit tolerance in mm	number of elements
0,2	- 0,03	1 - 150
0,3	- 0,04	1 - 150
0,5	- 0,05	1 - 150
0,7	- 0,05	1 - 150
1,2	- 0,06	1 - 125
1,5	- 0,08	1 - 100
3,2	- 0,1	1 - 50
5,0	- 0,12	1 - 25





# COMPENSATION AND THERMOCOUPLE LINES

## FIRE-RETARDANT AND FIRE-PROOF

### KX

cables for fixed and free bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km
<b>0,8 mm</b>				
1002826	KX-1-1-F-R 1x2x0,8 /st/zm/-/	2,000	6.9	52
1002825	KX-1-1-F-R 1x2x0,8 /ZE/zm/-/	1,700	9.0	113
1002805	KX-1-1-F-R 2x2x0,8 /st/z/-/	1,000	8.9	83
1002844	KX-1-1-F-R/LOCA 3x2x0,8 /st/WB/ZE/zm/-/	850	15.2	321
1002837	KX-1-1-F-R 3x2x0,8 /st/WB/ZE/zm/-/	850	13.6	266
1002806	KX-1-1-F-R 5x2x0,8 /st/zm/-/	1,000	12.9	164
1002842	KX-1-1-F-R 7x2x0,8 /st/z/-/	1,000	14.8	220
1003886	KX-1-1-F-R 10x2x0,8 /z/-/	1,400	14.9	215
1002817	KX-1-1-F-R 12x2x0,8 /st/ZE/zm/-/	1,000	23.1	797
1002818	KX-1-1-F-R 12x2x0,8 /st/zm/-/	1,000	18.4	338
1003887	KX-1-1-F-R 14x2x0,8 /z/-/	1,400	17.1	280
<b>1 mm</b>				
1002827	KX-1-1-F-R 1x2x1 /zm/-/	1,100	6.6	51
1002808	KX-1-1-FO-R 3x2x1 /o/-/	1,100	13.0	234
<b>1,12 mm</b>				
1002829	KX-1-1-F-R 1x2x1,12 /st/WB/ZE/zm/-/	650	11.2	171
1002830	KX-1-1-F-R 1x2x1,12 /st/ZE/zm/-/	650	11.1	164
1002832	KX-1-1-F-R 1x2x1,12 /st/zm/-/	900	7.9	86
1002831	KX-1-1-F-R 1x2x1,12 /ZE/zm/-/	1,100	10.4	153
1002828	KX-1-1-F-R 1x2x1,12 /zm/-/	1,100	7.2	58
1002853	KX-1-1-K-R 1x2x1,12 /zm/-/	900	6.7	53
1002843	KX-1-1-F-R/LOCA 1x2x1,12 /st/WB/ZE/zm/-/	650	12.0	194
1002855	KX-1-1-K-R/LOCA 1x2x1,12 /st/ZE/m/-/	900	10.2	149
1002819	KX-1-1-F-R 12x2x1,12 /st/zm/-/	600	22.5	504
<b>1,38 mm</b>				
1002833	KX-1-1-F-R 1x2x1,38 /zm/-/	700	7.8	72
1002835	KX-1-1-F-R 2x2x1,38 /st/zm/-/	500	11.6	146
1002854	KX-1-1-K-R 4x1,38 /zm/-/	2,800	9.7	119
1002820	KX-1-1-F-R 12x2x1,38 /st/ZE/zm/-/	500	28.7	1,300
<b>1,5 mm</b>				
1002834	KX-1-1-F-R 1x2x1,5 /zm/-/	650	8.0	79
1002836	KX-1-1-F-R 2x2x1,5 /st/zm/-/	1,400	15.1	179
<b>ROPE CLASS 2</b>				
1002859	KX-2-1-F-R 1x2x1 /zm/-/	700	7.8	66
1002860	KX-2-1-F-R 1x2x1 /zm/-/	2,800	7.8	66
1002863	KX-2-1-K-R 1x2x1 /zm/-/	700	7.3	59
1002864	KX-2-1-K-R 7x2x1 /zm/-/	650	16.9	283
1002861	KX-2-1-K-R 12x2x1 /zm/-/	650	21.8	467
1002862	KX-2-1-K-R 14x2x1 /zm/-/	650	23.3	532
<b>ROPE CLASS 5</b>				
<b>0,35 mm<sup>2</sup></b>				
1002873	KX-5-1-F-R 1x2x0,35/z/-/	1,000	6.8	52

special cables

# COMPENSATION AND THERMOCOUPLE LINES

## FIRE-RETARDANT AND FIRE-PROOF

**KX**

cables for fixed and free bedding

### brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km
1002875	KX-5-1-F-R 7x2x0,35/z/-/	1,000	14.7	214
1002870	KX-5-1-F-R 12x2x0,35/z/-/	1,000	18.3	305
1002872	KX-5-1-F-R 14x2x0,35/z/-/	1,000	19.9	392
	<b>0,75 mm²</b>			
1002865	KX-5-1-FO-R/LOCA 1x2x0,75 /st/o/-/	1,300	10.8	164
1002874	KX-5-1-F-R 1x2x0,75/zm/-/	1,300	6.8	52
1002871	KX-5-1-F-R 12x2x0,75/zm/-/	1,000	18.3	325
	<b>WIRE</b>			
	<b>0,6 mm</b>			
1002847	KX-1-1-F-V 1x2x0,6 /zm/-/	1,400	6.2	42
1002848	KX-1-1-F-V 7x2x0,6 /zm/-/	1,400	13.0	153
1002845	KX-1-1-F-V 12x2x0,6 /zm/-/	1,400	16.1	227
1002846	KX-1-1-F-V 14x2x0,6 /zm/-/	1,400	17.1	255
	<b>0,7 mm</b>			
1002849	KX-1-1-F-V 7x2x0,7 /zm/-/	1,000	14.7	111
	<b>0,8 mm</b>			
1002811	KX-1-1-FO-V/LOCA 1x2x0,8 /o/-/	3,900	10.3	133
1002856	KX-1-V 1x2x0,8/st/ZE/o/-/	900	11.3	173
1002858	KX-1-V LOCA 1x2x0,8 /ZE/o/-/	3,300	11.3	170
1002813	KX-1-1-FO-V/LOCA 2x2x0,8 /o/-/	1,000	12.4	201
	<b>1 mm</b>			
1002812	KX-1-1-FO-V/LOCA 1x2x1 /o/-/	1,100	10.7	155
1002809	KX-1-1-FO-V 2x2x1 /o/-/	800	12.8	217
1002851	KX-1-1-F-V/LOCA 7x2x1 /st/o/PGKK, GOSP/	500	20.6	363
1002852	KX-1-1-F-V/LOCA 7x2x1 /st/o/PGKK/	1,050	21.0	549
1002810	KX-1-1-FO-V 8x2x1 /o/-/	1,600	20.3	542
1003974	KX-1-1-FO-V 12x2x1 /o/-/	800	23.5	723
1002850	KX-1-1-F-V/LOCA 12x2x1 /st/o/PGKK, GOSP/	550	27.3	567
	<b>1,12 mm</b>			
1002857	KX-1-V 1x2x1,12 /st/ZE/o/-/	500	12.3	204
	<b>ROPE CLASS 5</b>			
	<b>0,35 mm²</b>			
1002879	KX-5-1-F-V 1x2x0,35/z/-/	1,000	6.8	46
1002880	KX-5-1-F-V 7x2x0,35/z/-/	1,000	14.7	175
1002876	KX-5-1-F-V 12x2x0,35/z/-/	1,000	18.3	266
1002878	KX-5-1-F-V 14x2x0,35/z/-/	1,000	19.9	314
	<b>0,5 mm²</b>			
1002881	KX-5-1-F-V 7x2x0,5/z/-/	1,000	16.3	210
	<b>0,75 mm²</b>			
1002868	KX-5-1-FO-V/LOCA 1x2x0,75/z/-/	700	10.9	157
1002867	KX-5-1-FO-V/LOCA 1x2x0,75/z/-/	700	10.9	155

special cables

# COMPENSATION AND THERMOCOUPLE LINES

## FIRE-RETARDANT AND FIRE-PROOF

### KX

cables for fixed and free bedding

brief product overview

order number	cable type	maximum production length	cable diameter	cable weight kg/km
1002869	KX-5-1-FO-V/LOCA 2x2x0,75/z/-/	700	13.5	237
1002866	KX-5-1-FO-V 2x2x0,75/z/-/	700	13.1	229
1002877	KX-5-1-F-V 12x2x0,75/z/-/	900	21.7	399

special cables

# COMPENSATION AND THERMOCOUPLE LINES

## FIRE-RETARDANT AND FIRE-PROOF

JX

cables for fixed and free bedding

### use

Cables are designed for signal transmission at the nominal voltage up to 500 V ef in environments acc. to ČSN 33 2000-3. Extension and compensation lines are used for electric connections of open branches in thermocouples and reference connections in arrangements where thermocouple conductors are not directly connected with the reference connection.

### features

- min. bending semidiameter generally 10 x cable diameter,
- max. tensile stress 50 N/mm<sup>2</sup> of the element
- temperature at bedding up to -5°C if agreed with the producer

Minimum operating time of these cables according to these TP during which the features of non-metal elements can reach the maximum level to which it is defined.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm.



special cables



### derived variants



CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

### brief product overview

order number	cable type	maximum production length	průměr kabelu	cable weight kg/km
<b>0,8 mm</b>				
1002638	JX-1-1-F-R 2x2x0,8 /st/č/-/	1,400	9.3	92
1002639	JX-1-1-F-R 5x2x0,8 /st/čm/	1,000	12.9	161
1002640	JX-1-1-F-R 7x2x0,8 /st/čm/-/	1,000	14.8	210
<b>1,12 mm</b>				
1002636	JX-1-1-F-R 1x2x1,12 /čm/-/	1,100	7.2	58
1002637	JX-1-1-F-R 1x2x1,12 /st/čm/	800	7.9	87

# SPECIAL CABLES BESY

## ATYPICAL CABLE CONSTRUCTIONS

Special cables and conductors are in fact the most accommodating step of KABELOVNA KABEX® a.s. to meet the needs of our customers. They enable the construction of final products just according to their needs. The wide range of our products, certified according to new European standards, enable production of combined cables - several types of cables under one jacket - as well as products designed specifically for individual installations. Our own development programme and high quality technological base guarantee full satisfaction even for customers with highly specific requirements.

On customer request, we are able to produce multifunction hybrid cables based on our standard product range.

A multifunctional cable can have fire-proof or LOCA features if composed of variant cable groups in which all elements must have the same or higher class of design in the following groups:

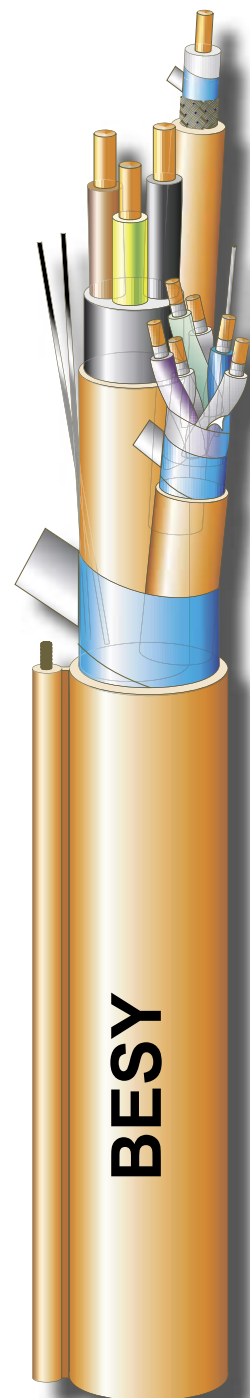
- of PVC
- fire-non-effusing
- fire-non-effusing and fire-proof
- fire-non-effusing/LOCA
- fire-non-effusing and fire-proof/LOCA

Multifunctional cable can be manufactured as self-supporting.

Beside standard, above mentioned product groups, KABELOVNA KABEX® a.s. also offers their extended derived variants as a response to individual customer needs. Another important feature is also our cooperation on project design and following development of the new product depending on customer's needs. All these activities, new or extended solutions, are supported by testing in appropriate testing laboratories and duly qualified and certified. In such cases of cooperation, please, feel free to contact our sales or technical department.

Ambient parameters, bending semi-diameters and cable resistance values are specific for the construction of each product.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm



special cables

# CABLES FOR NUCLEAR ENERGETICS

## LOCA

Product of Kabelovna Kabex® marked as LOCA are in our current production and and in our catalogue marked as



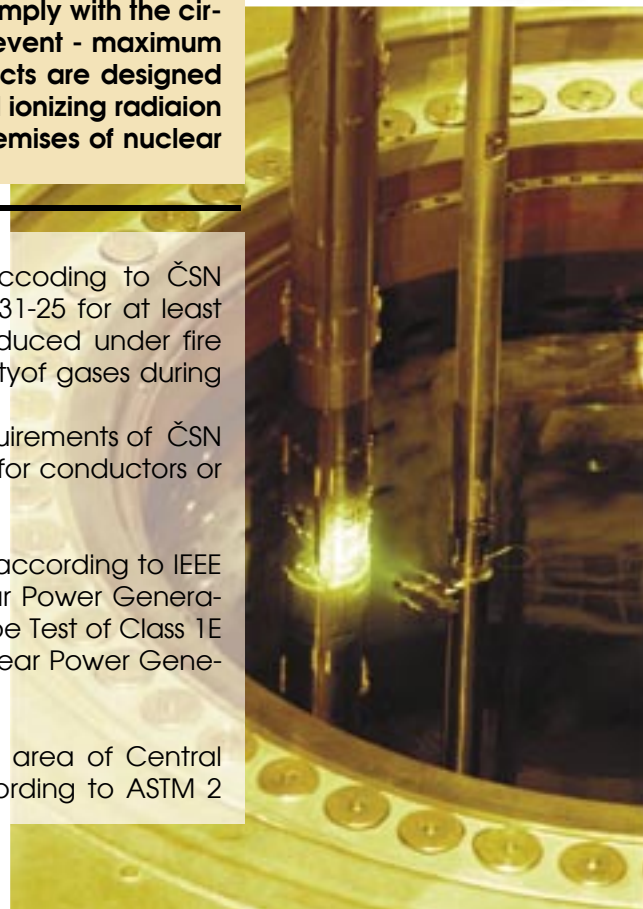
**The products of kabelovna KABEX® marked as LOCA comply with the circumstances of the course and after-effects of a LOCA event - maximum project accident in environments of NPPs. These products are designed for the use mainly in places with higher threat of fire and ionizing radiation in medicine, as well as, for example, in service-free premises of nuclear power plants.**

Cables with enhanced resistivity to flame effusion according to ČSN EN 50266-2-2 and fire-proof according to ČSN IEC 60331-25 for at least 180 min, halogen-free, with low density of smoke produced under fire conditions according to ČSN EN 50268-2 and low acidity of gases during burning according to ČSN EN 50267-2-3.

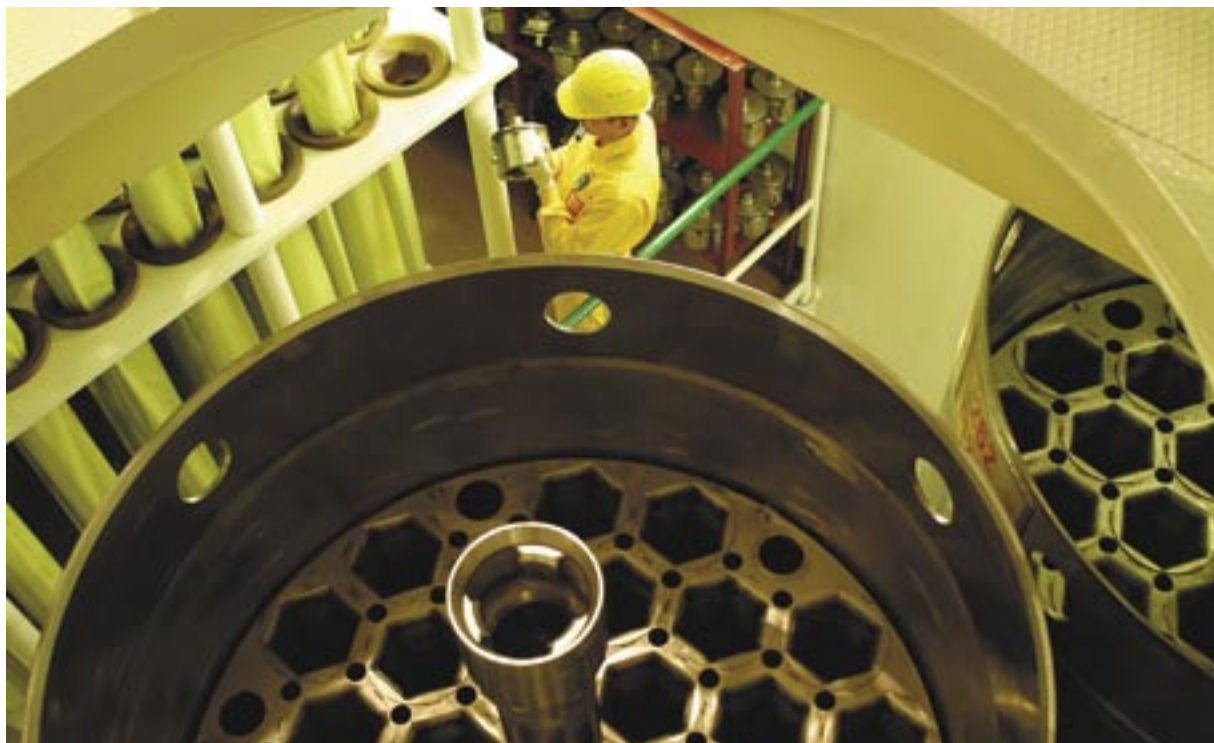
Optical cables according to these TP also meet the requirements of ČSN EN 60332-1-2 on the resistivity to vertical flame effusion for conductors or cables with single insulation.

TP apply for power cables that meet the requirements according to IEEE Std. 323-1983 Qualifying Class 1E Equipment for Nuclear Power Generating Stations and IEEE Std. 383-1980 IEEE Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations, ČSN IEC 60780 and ČSN IEC 1226.

Resistivity: Cables are resistant to UV radiation for the area of Central Europe, to the effects of oil products (oil, petrol) according to ASTM 2 standard.



special cables





# FLEXIBLE AND HIGHLY FLEXIBLE CABLES

**PURFLEX®**

highly flexible control cable for hauling chains, EMC resistant  
cables for moveable bedding

## use

Cables with high flexibility are designed for the use in hauling chains and all applications where cables are exposed to permanently repeating bends and small semi-diameters. They are ideal for applications with high occurrence of chemicals, microbes and outdoor damp environment. Thanks to their features, these cables are ideal for the use in machinery, robotisation, working machines. The polyurethane jacket prevents sliding and it is resistant to cutting.

## features

### Technical parameters:

Nominal voltage:	300/500 V
Testing voltage:	2000 V / 50 Hz
Operating temperature:	movable bedding -40°C to + 90°C fixed bedding -50°C to +90°C
Minimum bending semi-diameter:	flexible bedding 7,5 x cable diameter fixed bedding 4 x cable diameter

### Specification

- high flexibility
- long-term flexibility even at low temperatures
- resistivity to mechanical stress
- resistivity to oils, acids, ozone, water, microbes
- halogen-free
- resistivity to interference from outer environment
- bending cycle testing:  
cca 10 mil, tested according to DIN VDE 0472 tail 603  
testing method H

Core colour marking: according to ČSN 330166 ed. 2 (HD 308 S2) or black numbered cores or green-yellow conductor or according to customer's request.

Jacket colour: yellow or according to customer's request.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm



special cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants

**PURFLEX®**

**PURFLEX®-C** EMC resistant

**PURFLEX®-5Y** rope class 5, PVC core insulation, less demanding applications with temperature at movable bedding

only -5 to 70°C

**PURFLEX®-EL** elevator cable with central tensile element and the possibility of vertical suspension up to 60 m

# FLEXIBLE AND HIGHLY FLEXIBLE CABLES

**ULTRAFLEX®**

flexible power cable for temperatures up to 90°C  
cables for movable bedding

## use

ULTRAFLEX-R cables are control cables designed for movable installations in applications with higher operating temperature of the cable and the environment. They also meet the requirements of operations with the threat of fire where higher resistivity to flame effusion is required.

## features

### Technical parameters:

Nominal voltage:	300/500 V
Testing voltage:	2000 V / 50 Hz
Operating temperature:	movable bedding -40°C to +90°C fixed bedding -50°C to +90°C
Minimum bending semi-diameter:	flexible bedding 7,5 x cable diameter fixed bedding 4 x cable diameter

### Specification

- high flexibility
- long-term flexibility even at low temperatures
- resistivity to interference from outer environment

Core colour marking: according to ČSN 330166 ed. 2 (HD 308 S2) or black numbered cores or green-yellow conductor or according to customer's request.

Jacket colour: grey or according to customer's request.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm



special cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



## derived variants

**ULTRAFLEX®**

**ULTRAFLEX®-C** EMC resistant

# FLEXIBLE AND HIGHLY FLEXIBLE CABLES

## ULTRAFLEX®-EL

flexible power cable for temperatures up to 90°C  
cables for movable bedding

### use

Cables with high flexibility are designed for the use in hauling chains and all applications where cables are exposed to permanently repeating bends and small semi-diameters. ULTRAFLEX-R cables are control cables designed for movable installations in applications with higher operating temperature of the cable and the environment. They also meet the requirements of operations with the threat of fire where higher resistivity to flame effusion is required.

### features

#### Technical parameters:

Nominal voltage:	300/500 V
Testing voltage:	2000 V / 50 Hz
Operating temperature:	movable bedding -40°C to + 90°C fixed bedding -50°C to +90°C
Minimum bending semi-diameter:	flexible bedding 7,5 x cable diameter fixed bedding 4 x cable diameter

#### Specification

- high flexibility
- long-term flexibility even at low temperatures
- cores are parallel in groups of 2-5 cores
- tear thread in every core group

Core colour marking: according to ČSN 330166 ed. 2 (HD 308 S2) or black numbered cores or green-yellow conductor or according to customer's request.

Jacket colour: orange or according to customer's request.

Cables are delivered in coils or on cable reels up to the diameter of 1500 mm



special cables

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



# SPECIAL PRODUCTS OFFER


special products

# glossary of terms


## product features



**halogen-free** - the components of a halogen-free product are made of exclusively halogen-free material. If a halogen-free product is on fire, no corrodible gasses are produced. Cables are supposed to be halogen-free if they meet the recommendations of the ČSN EN 50267 standard. These products usually meet other standards for a lower production of smoke under fire conditions (ČSN EN 50268).

**for places with the threat of explosion** thanks to their construction and materials used, the product does not transmit axially dangerous vapours

 the ESČ sign stands for the compliance between the features of the marked products with the standards on electrical safety.

**sparking-safe circuits** cables are designed for environments with the threat of fire Zones 0;1;2 provided that the conditions of sparking safety according to IEC 79-11 are respected

**fire non-effusing** (product marked by ) has an enhanced resistance to the effect of flame under fire conditions of a bundle. The products marked by this sign must meet the ČSN EN 50266 A F/R, A, B, C or D. In this case, the letter suffix stands for a different testing methodology varying mainly in the time for which the flame effects the cable and in the number of non-metal parts in the sample. The marking -R meets mainly the standard in class A (other marking -F/R, -R, -R/B, -R/C, -R/D)

**fire-proof** (product marked by  ) a product with insulation integrity with enhanced resistance to flame during a test according to ČSN IEC 60 331, with a given gasflow, the dimensions of the burner and the temperature higher than 750°C

**LOCA** maximum project accident on a NPP, the cable is resistant to ionizing radiation

**E-90** cables with retained functionality E 90 according to DIN 4102-12, in combination with cable system complying with the same requirements

**E - 30** cables with retained functionality E 30 according to DIN 4102-12, in combination with cable system complying with the same requirements

## identification of standards

**ASTM** American standard of testing materials (USA)

**ANSI** American national standards institute (USA)

**BS** British standard (Great Britain)

**CEN** European Committee for Standardization (Brussels) - the abbreviation is derived from the French name of the commity: Comité Européen de Normalisation, established in 1975

**ČSN** Czech national standard

**ČSN EN** Czech version of a European standard

**ČSN IEC** Czech version of an international standard

**DEP** Design and Engineering Practise - Shell construction standards

**DIN** Deutsches institut für normung (Germany) - German standards

**EN** European standards

**GOST** - Soviet standards

**IEC** International Electrotechnical Commission - (Geneve), established in 1906 - international standards

**IEEE** The Institute of Electrical and Electronics Engineers

**ISO** International Organization for Standardization (Geneve) established in 1947

**MESC** Material and Equipment Standards and Code - Shell construction standards

**NFC** Normes Françaises Class C (France) - French standards

**VDE** Verein Deutscher Elektroingenieure (Germany) - German standards

## material identification

**HDPE** low-pressure polyethylen

**LDPE** high-pressure polyethylen

**PE** polyethylen

**PVC** polyvinilchloride

**XLPE** cross-linked polyethylen

## cable circuits

**CCTV** closed television circuit

**EPS** Electronic fire alarm system

**GAS** circuits for gas detection

**MaR** measurement and regulation circuits



# product overview

## System of construction separated spaces BURNEX®

BURNEX® -T	151
BURNEX® -M	151

## Microtube system TRUBEX®

TRUBEX®	152
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## Cable lighting system LIGHTEX®

LIGHTEX®	154
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## Hermetic cable bushings and sets

Cable sets	155
Hermetic cable bushing KABEX® 2000 M	157
Hermetic cable bushing KABEX® 2000 NHKP	158
Hermetic cable bushing KABEX® 2000 VHKP	160
PGKK bushings repairs and adding fire-proof qualities to ELOX connections	162

All products meet the directive **202/95/EC RoHS** forbidding the use of some dangerous substances in electrical and electronical devices.

special products



# SPECIAL PRODUCTS

## BURNEX®

system for construction separated space

### use

BURNEX® is a cable route system used for cables in METRO ventilation shafts, in WWER of NPPs, in nuclear radiation shielding shelters and wherever a fire-separated space for cable laying is required.

It ensures fire-separation of cable installations in separating constructions of individual fire sections while ensuring the integrity of the whole system. The set meets the requirements of seismic load up to level 8 of the MSK scale, it is compact and applicable for fire-conditions up to 1000 °C. The system is designed for installations in ventilation shafts, tunnels, elevator shafts of high-rise buildings, hotels, administrative and business centres, mining quarries.

### features

The cable routes of the BURNEX® system consist of modular sections that form a connected austenitic steel channel following the contours of the wall to which it is attached. The channel is covered with ceramic elements ensuring the fire-resistance of the entire system.

The system is made up of the following components:

1. Connector - designed for attaching and connecting cable routes. This austenitic steel element supports the remaining parts of the route.
2. Straight component - forms the cable channel for cable laying. It is made of austenitic steel tubing and is normally manufactured in specified lengths of 1,2 and 3 metres.
3. Elbows and decks - designed for leading routes across various bends and passages (projections, corners, stairs, etc.)
4. Flexible component - made of austenitic flexible tube. In the course of manufacture, connectors were welded to both sides of the component and a ceramic shield was attached to it. The length of the manufactured flexible components is 1 m.
5. Thermal protection - made of ceramic material protecting the route against heat.



Fire Safety of Buildings - ČSN 73 0802, ČSN 73 0810

Fire Resistivity Testing - ČSN EN 1363-1, ČSN EN 1363-2

Fire Classification of Construction Products and Building Elements - ČSN EN 13501-1, ČSN EN 13501-2

Fire-technical Properties of Materials. Degree of Construction Material Flammability - ČSN 73 0823

Designin Steel Structures - ČSN P ENV 1993-1-2:1996

Nuclear Power Plants - Safety System Electrical Equipment ČSN IEC 60780

#### -Qualification Verification

Nuclear Power Plants - Instrumentation and Control Systems Important for Safety - ČSN IEC 1226

#### - Classification

Qualifying Class 1E Equipment for Nuclear Power Generating Stations IEEE Std. 323-1983

Recommended Methods for Verifying Earthquake Qualification of Electrical Equipment of Nuclear Power Plant Safety System - ČSN IEC 980

Basic standard - TP Nr. KBX 2/04

The system shows R 90 D1 fire-resistivity.

The system is resistant to radiation.

The system is resistant to seismic load of level 8 of MSK 64.

For the use in NPP hermetic zone, meets the requirements of the course and after-effects of LOCA event, to conditions of Maximum project accident in WWER 440 and 1000.

### brief product overview

**BURNEX®-I** - pressure variant - components are adapted to pressure blowing of cables.

**BURNEX®-M** - mechanical variant - components are adapted for the possibility of manual plug-in or pulling of the cable.

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.

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# SPECIAL PRODUCTS

## TRUBEX®

micro-tube system for FTTx optical access networks

### use

Microtube system represents one of modern technologies used in telecommunications, especially for the construction of optical access and metropolitan networks. The TrUBEX® system enables constructions of a wide range of mutually independent optical routes up to end users. Based to their needs, microcables can be blown into these routes which offers high flexibility and financial savings when building networks..



special products



# SPECIAL PRODUCTS

## TRUBEX®

micro-tube system for FTTx optical access networks

Indoor installation  
Installation into HDP tubes  
Variant in FRNC design

Outdoor installation

Outdoor installation  
Outer diameter calibrated

Outdoor installation  
For heat-shrinkable accessory



TrUBEX 1x5/I (1x7;1x10)



TrUBEX 1x5/WB (1x7;1x10)



TrUBEX 1x5/MWB (1x7;1x10)



TrUBEX 4x5/I (4x7;4x10)



TrUBEX 4x5/WB (4x7;4x10)



TrUBEX 4x5/MWB (4x7;4x10)



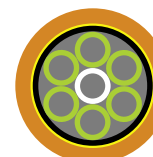
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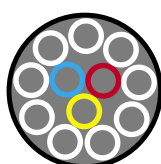
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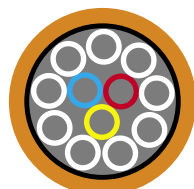
TrUBEX 7x5/WB cal. 20



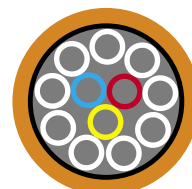
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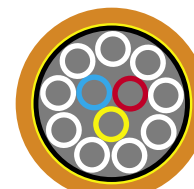
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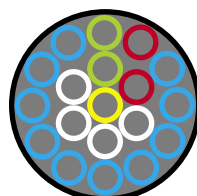
TrUBEX 12x5/WB



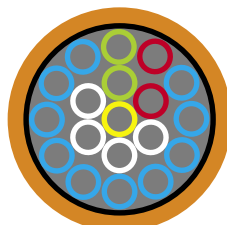
TrUBEX 12x5/WB cal. 25



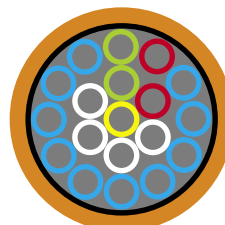
TrUBEX 12x5/MWB



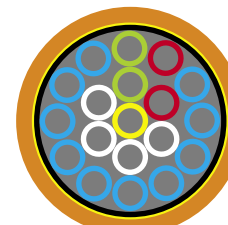
TrUBEX 19x5/I



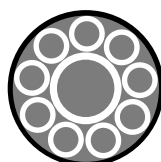
TrUBEX 19x5/WB



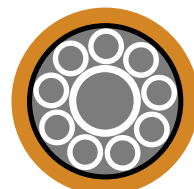
TrUBEX 19x5/WB cal. 32



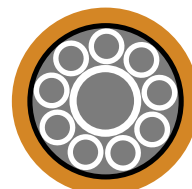
TrUBEX 19x5/MWB



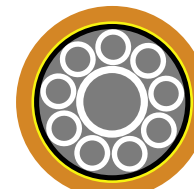
TrUBEX 1x10+9x5/I



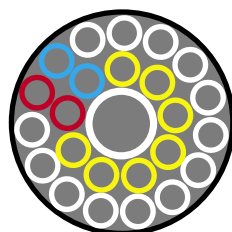
TrUBEX 1x10+9x5/WB



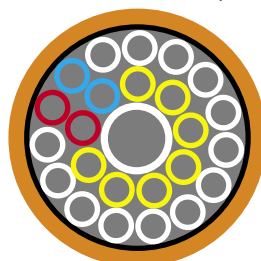
TrUBEX 1x10+9x5/WB cal. 25



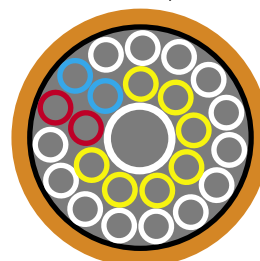
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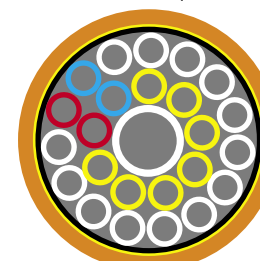
TrUBEX 1x10+24x5/I



TrUBEX 1x10+24x5/WB



TrUBEX 1x10+24x5/WB cal. 40



TrUBEX 1x10+24x5/MWB

special products

CE - The product conforms with all aspects of basic requirements of all EU directives or government decrees under the P-ECA agreement.



# SPECIAL PRODUCTS

## LIGHTEX®

cable lighting system

### use

LIGHTEX® is a system of indoor lighting using a line of LED diodes, covered with a flexible transparent PUR or PVC jacket. This unique product has high luminosity which makes it suitable for marking escape routes and emergency illumination, as well as for advertising and exterior use (swimming-pools) and interior applications. The variant PUR is mainly suitable for its halogen-free jacket compound for premises with higher presence of people, for tunnel constructions and premises with higher threat of fire. Colour versions and the possibility of continual change of colours on the same system further open the range of possibilities for use. The PUR material with its special mechanical features allows its use in joints in floor-elements or in permanent immersions in various liquids.

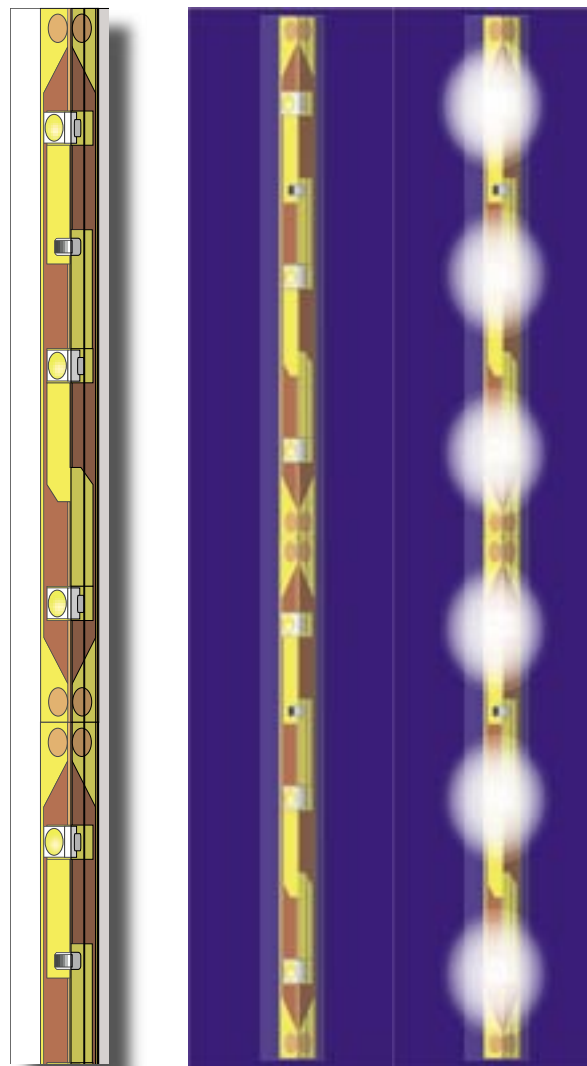
### features

Standard design:

- in white, warm white, red, yellow, blue, green and RGB (continuously changing colours)
- operating voltage DC12V/170-200 mA
- light flux
  - white 28 lm
  - red 16 lm
  - yellow 14 lm
  - blue 13,2 lm
  - green 19 lm
- depends on the system length and design
- number of LED diodes in 1 m - 60
- water-proof
- scratch-resistive
- flexible
- UV stable

Colours of the LIGHTEX® lighting system are optional according to customer's request.

LIGHTEX® system is supplied in rolls with accessories, enabling its connection to current 230 V mains.



# CABLE SETS

**KS-R; KZ-R; KS-V;KZ-V**

## use

Cable sets delivered by KABELOVNA KABEX® a.s. complete the wide range of from our products to products of leading international companies. Thanks to our wide offer in special cables, we also originally offered services in connecting and ending of our cables. With the rising demand mainly for fire non-effusing and fire-proof sets (also used on PVC cables as a barrier against the effusion of fire) KABELOVNA KABEX® a.s. created an individual department for the development and completion of cable sets for most available cable types.

Currently, we offer recently certified cable sets for the whole range of our products including sets for places affected by ionizing radiation and for NPPs - LOCA. We also deliver fire non-effusing and fire non-effusing and fire-proof hermetic bushings and cable end connectors, suitable mainly for tunnel and underground constructions with the threat of flooding.

### Sets are designed for cables with 6/10 kV nominal voltage.

They are used for places with the threat of fire and can be installed directly on a flammable surface and for places with the threat of explosion Zone1 and Zone 2.

Sets can be used for non-maintenance premises at NPPs. Sets can be used for the connection to a Hermetic cable bushing in its „mechanical“ and „sealed“ variants.

They are suitable for barriers against the effusion of flame on PVC cables.

## features

Based on the specific features of the cable or cables used for the environment for which the set is designed.

operating temperature from - 50°C to + 90°C  
resistivity: Cables are resistant to oils and oil products according to ASTM 2.

*Joints and end connectors type „H“ resist the pressure of*

*a 60 m water column for minimum 36 days.*

### ADVANTAGES OF CABLE SETS MADE BY KABELOVNA KABEX a.s.

- Cable sets (connections, endings) always have the same features of the entire cable route.
- The construction of cable sets is fully in retention of Kabelovna KABEX a.s., therefore, it can be flexible to change the construction design or broaden its quality at any time.
- The set construction always fully meets all technical requirements for the cable.
- Modified variants of cable sets can be ordered, such as linking more cables on the route or, on the contrary, distribution to various directions.
- Joints allow connections of an optional number of cables from both sides.



Cable joints made by Kabelovna KABEX® a.s. as used on a bushing wall in NPP Dukovany

cable sets

# CABLE SETS

## KS-R; KZ-R; KS-V;KZ-V

Cable sets with enhanced resistance to flame effusion acc. to ČSN EN 50266-1, ČSN EN 50266-2-2, and fire-proof according to ČSN IEC 60331-11, ČSN IEC 60331-21 for the period of at least 120min, *halogen-free with low density of smoke acc. to ČSN EN 502681-1, ČSN EN 50268-2 and low acidity of gasses produced under fire conditions acc. to ČSN EN 50267-1 and ČSN EN 500267-2-3*

**Sets are designed for cables with 6/10 kV nominal voltage.**

**Pressing joints ensure a perfect connection of connected conductors.**

**If the cable contains a concentric conductor, the conductor is adequate in the cable joint part.**

**If the cable is armoured, the armour is connected conductively where the joint is placed. This armour connection, however, does not ensure the current carrying capacity to which it may be exposed outside the joint in case this requirement is not expressed explicitly in the order specification.**

**The reduction ratio remains unchanged in the joint position.**

**Cable sets are designed especially for connecting cables on a cable route so that the best possible the homogeneity of the cable.**

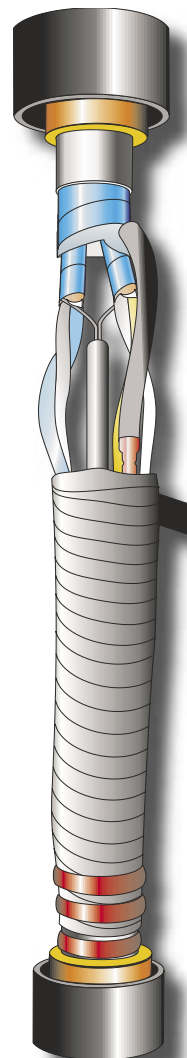
**Joints and End connectors - tested acc. to the methodology set by ČSN 34 7010-82 5.3.1 Electrical cables - complementary testing methods and test by long-term immersion into water - Method 1. For the whole time of testing they prove their full water- and pressure-tightness, el. parameters remain unchanged.**

Individual cable sets acc. to this TP can be placed in cable tracks one after another or paralelly without increasing the fire load. They are not treated by any additional fire-breaking priming.

**operational temperature** from – 50 °C to + 90 °C

**strength** - Cables are resistant to UV radiation for the region of central Europe, against the effects of oil products according to ASTM 2.

*Joints and end connectors type „H” resist the pressure of a 60 m water column for the period of at least 36 days.*





# HERMETIC CABLE BUSHINGS

## KABEX® 2002 M

### use

Hermetic cable bushings are designed for the connection of different places with the guarantee of full mutual separation of specific types of environment. These bushings ensure the separation even under the influence of extreme events (overpressure, flooding, explosion etc.) and in premises affected by radiation. They are used especially in nuclear energetics where the tightness can be controlled continuously, for guarding objects during flooding, for cable ducts between individual fire sections of objects with the protection of premises of different pressure and temperature conditions.

Sealing of penetrations of cable routes through pressure sheds, pressure- and gas-resistive building constructions. Use for cables with metallic elements (power, HV, communication) and optical cables.

### features

KABEX® 2002 M bushing fully ensures fire-separation of premises where used. It is resistant to aggressive solutions (pH 4 to 11).

Cable passes through the pass without disconnection.

Bushing installation is carried out on operating devices.

The construction of the cable hermetic bushing KABEX® 2002 M is based on casting both sides of the cable pass with a mixture of polyurethane with defined position. Any possible further cable inlet into the installed pass, with an installed cable bushing KABEX® 2002 M can be made after drilling holes into the polyurethane casting and subsequent filling after the cable is drawn through the holes.

Bushings are also installed in passes of escalator tunnels - the KABEX® 2002 M bushing can be installed in any position. It can be also used in arched (eccentric) passes.

overpressure range:

long-term 0,6 MPa

short-term (5 min.) 1,1 MPa

**KABEX® 2002 M bushings are approved by certificate Nr. 7/2003 - TR DP hl. m. Prahy a.s. and have been installed in the Prague underground METRO since 2003.**



cable bushings

# HERMETIC CABLE BUSHINGS

## KABEX® 2002 NHKP

LOW-VOLTAGE BUSHING UP TO 1kV

### use

These bushings are used for deliveries in nuclear power stations of different types of reactors requiring hermetic features, radiation stability and fire-proof safety 1E according to IEEE Std. 323:83 and complying with IEEE Std.317:83(IEC772)

They further meet the requirements classified as A Category in compliance with the ČSN IEC 1226 and ČSN IEC 60780:01 standards.

function:

- passing of cables through the border of an NPP hermetic zone
- keeping the hermetic features of a containment
- preventing the generation of radiance
- effective biological protection against ionizing radiation.
- fire-safety function of the fireproof bulkhead in standard operation and under LOCA conditions.

NHKP Module bushing

The bushing can be equipped with seven modules of different designs.

Type of subbroupes (modules):

- KNC – module equipped with insulated Cu bars
- KNK – module equipped with insulated Cu cores
- KKK – module equipped with through cables
- KZM – blind-off module

On customer's request, the Kabex®2002 bushing can be supplied with additional manometric system.



### features

Qualified class 1E device for NPPs according to IEEE 323  
TRIPLE fire-safety:

1. Construction

Separation of fire spaces (sections)

2. Flame does not effuse on cables

Delivered cables are of our own production ensured fire-non-effusing design of conductors and connecting sets.

3. Function ability under and after fire-conditions - compliance with the requirements of 1E according to IEEE Std. 323-1983, IEEE 317-1983 ((IEC 773 (1983-01)))  
Function ability checked even on the level of independent modules.

Fire-safety HKP is min. EI 90 minutes according to EN 1363 - 1.



# HERMETIC CABLE BUSHINGS

## KABEX® 2002 NHKP

LOW-VOLTAGE BUSHING UP TO 1kV

Thanks to the used elements, the **kabex®2002** bushings are:

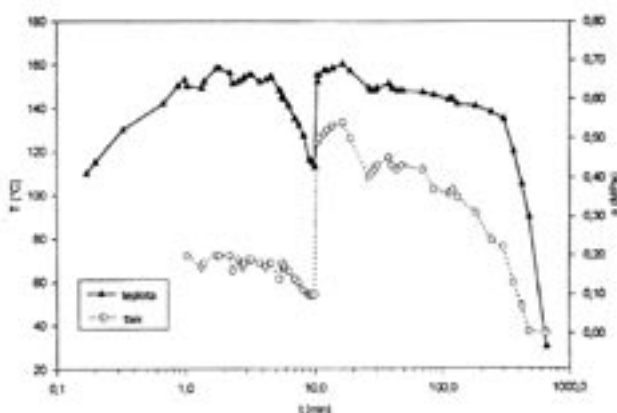
- halogen-free
- with low density of produced smoke
- with low gas acidity
- resistant to the effects of heat, humidity, chemical substances, ionizing radiation, vibrations and seismic activity and to the threat of explosion
- standard production for wall thickness from 400 to 3500 mm.
- product service-life is 40 years of normal operation including seismic event and LOCA events

**kabex®2002** cable bushings are constructed as:

- Easy and trouble-free change of a module
- maintenance-free device
- significant cost saving solution in terms of maintenance
- fully compliant to EMC requirements, proven by measurements incl. impact impulses (HEMP; MEMP)
- module system = quick solution of new cable routes

KABEX bushings are tested in compliance with the thermodynamic profile of WWER 440 and in accordance with the thermodynamic profile of WWER 1000 without interruption (united text).

Thermodynamic profile of a LOCA test  
(p-pressure, T-temperature, t-time )



### Advantages of KABEX 2002 bushings

1. The KABEX design is unified as a WWER 440, as well as WWER 1000 prototype. That means one training applies for the same procedures for both types of power plants.

2. Biological protection is carried out in the body of the hermetic bushing. The advantage is in the possibility of a really efficient biological protection.

3. The connection of cables to walls is protected from the primary as well as secondary side against mechanical damage of stainless-steel covers.

4. Kabelovna KABEX ensures training of assembly technicians in full assembly range as well as supervision or technical advice for dealing with specific problem situations.

5. Kabelovna KABEX supplies its bushings with axially tight qualified cables which help significantly to retain the hermetic features of the whole bushing area. This solution is patent protected by Kabelovna KABEX a.s..

6. Bushings, including individual modules, are designed to suit assembly from primary and secondary sides.

7. If there are modules in the bushing body that are not used, Kabelovna KABEX shall deliver a blinding module (KZM or CBM). If the bushing is fully used with cables, only this module will be exchanged (it is not necessary to remove the whole bushing from the wall).

Individual parts of the hermetic cable bushing are ordered in compliance with the piece list, shown in the drawing.

### Specification of conditions HZ VVER 1000

Working mode/ surveyed paramters	Normal working mode	Emergency mode „small tightness disturbance“	Emergency mode „maximum accident“ - LOCA
Temperature °C)	≤ 60	≤ 90	≤ 158
Pressure (MPa)	≤ 0,103	≤ 0,120	≤ 0,560
Relative humidity (%)	≤ 90	≤ 95	≤ 100
Dose rate (Gy/hour)	≤ 1	≤ 1	≤ 1000
Mode duration time (hour)	---	≤ 5	≤ 10
Frequency in 50 years of atomic PP operation	---	25 x	1 x

# HERMETIC CABLE BUSHINGS

## KABEX® 2002 VHKP

HIGH-VOLTAGE BUSHING UP TO 8/12 kV

### use

These bushings are used for deliveries in nuclear power stations of different types of reactors requiring hermetic features, radiation stability and fire-proof safety 1E according to IEEE Std. 323:83 and complying with IEEE Std.317:83(IEC772)

They further meet the requirements classified as A Category in compliance with the ČSN IEC 1226 and ČSN IEC 60780:01 standards.

function:

- passing of cables through the border of a NPP hermetic zone
- keeping the hermetic features of a containment
- preventing the generation of radiance
- effective biological protection against ionizing radiation
- fire-safety function of the fireproof bulkhead in standard operation and under LOCA conditions.

#### VHKP 1

- single-conductor

#### VHKP 3

- triple-conducator

On customer's request, the Kabex®2002 bushing can be supplied with additional manometric system.

### features

Qualified class 1E device for NPPs according to IEEE 323

TRIPLE fire-safety:

#### 1. Construction

Separation of fire spaces (sections)

#### 2. Flame does not effuse on cables

Delivered cables are of our own production ensured fire-non-effusing design of conductors and connecting sets.

#### 3. Function ability under and after fire-conditions - compliance with the requirements of 1E according to IEEE Std. 323-1983, IEEE 317-1983 ((IEC 773 (1983-01))

Function ability checked even on the level of independent modules.

Fire-safety HKP is min. EI 90 minutes according to EN 1363 - 1.

Partial discharge max. 10 pC/15kV.



# HERMETIC CABLE BUSHINGS

## KABEX® 2002 VHKP

HIGH-VOLTAGE BUSHING UP TO 8/12 kV

Thanks to the used elements, the **kabex®2002** bushings are:

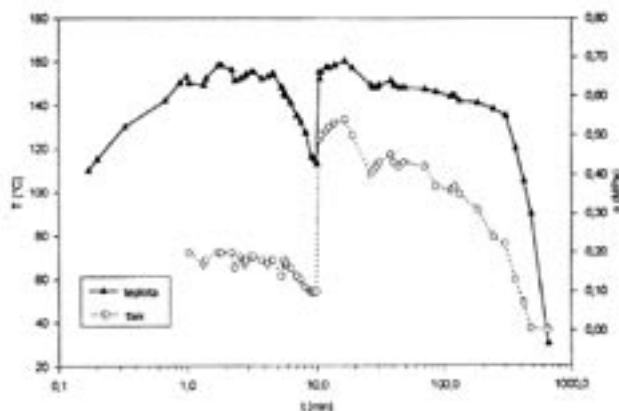
- halogen-free
- with low density of produced smoke
- with low gas acidity
- resistant to the effects of heat, humidity, chemical substances, ionizing radiation, vibrations and seismic activity and to the threat of explosion
- standard production for wall thickness from 400 to 3500 mm.
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Working mode/ surveyed parameters	Normal working mode	Emergency mode „small tightness disturbance“	Emergency mode „maximum accident“ - LOCA
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Relative humidity (%)	≤ 90	≤ 95	≤ 100
Dose rate (Gy/hour)	≤ 1	≤ 1	≤ 1000
Mode duration time (hours)	---	≤ 5	≤ 10
Frequency in 50 yrs of atomic PP operation	---	25 x	1 x

# HERMETIC CABLE BUSHINGS

## PGKK REPAIRS AND ADDING FIRE-PROOFNESS TO ELOX CONN.

KS PGKK sets; KS KERAMEX® sets

### use

KABEX and PGKK cable plugs are designed for the repairs and modernization of current hermetic cable bushings in nuclear power plants. They are qualified for WWER 440 and WWER 1000 types and PWR.

### DESCRIPTION OF THE ORIGINAL RUSSIAN SOLUTION FOR SEALING A HCB PGKK AND SIMILAR APPLICATIONS

#### Disadvantages

- Filling substance is strongly flammable, strongly corrosive and sultry during burning.
- Sealing plugs for PGKK HCB and other applications is not defined and there are very often leakages, as well as during ageing
- All other materials, including cables, are strongly flammable, strongly corrosive and sultry during burning
- Metal parts are made of classical stainless steel and they age and corrode naturally.
- The quality of sealing elements and the following whole assembly cannot be defined and follow or alter during the whole operation life
- The solution shown in the picture below do not meet any valid EN or IEC standard.
- Informative qualification of the NPP Dukovany components was absolutely unsuccessful from its very beginning.

### DESCRIPTION OF THE NEW PGKK SEALING AND SIMILAR APPLICATIONS

Features and advantages of the new solution by Kabelovna KABEX a.s.

- The filling compound is fire-retardant, non-corrosive and non-fuming
- Filling of PGKK MCBs is defined. During qualification, there were no leakages and if this appears, the inner body of the bushing contains build-ins and tight locks.
- All other materials including cables are cable-retardant, non-corrosive and no. fuming. - people prefer
- Metal elements are made of authentic stainless-steel.
- Plugs are fastened to the body by a steel ring over a silicone profile ring plus by nuts with defined moment. The plug is tight just by itself.
- The solution shown in the picture is fully certified and approved for WWER 440 and WWER 1000 NPPs and meets all valid laws, standards and regulations.
- The solution was qualified for a WWER 440 NPP and WWER 1000 NPPs as a part of quality and engineering System Recovery of NPP Dukovany.



Mounted corrective completes - repair, for NPP Dukovany

The whole solution has been qualified on a fully fitted body of a hermetic cable bushing. The qualification was carried out in the range of WWER 440 and WWER 1000 NPPs depending as a part of the Recovery of control system of the control and regulating the NPP Dukovany. For its bushings, KABEX delivers for its bushings strongly axial tight qualified cables which support the hermetic features of the whole bushing area. This solution is patent protected by Kabelovna KABEX.



# TESTING LABORATORY



## Fire-resistivity testing

Kabelovna Kabex a.s. is qualified to carry out testing acc. to the above listed standards and subsequently issue testing protocols.

We offer informative tests and type tests with the assistance of a specialist from the Electrotechnical testing institute.

### **a) acc. to ČSN IEC 60331 - insulation integrity test**

tests are carried out on devices acc. to ČSN IEC 60331-11 **standard**

by several methodology procedures - for cables to 0,6/1 kV acc. ČSN IEC 60331-21 - 21

- for data cables acc. to ČSN IEC 60331-23 - 23

- for optical cables acc. to ČSN IEC 60331-25

### **b) acc. to ČSN EN 50266 (IEC 60332-3) - tests for fire non-effusing cables and conductors in classes A F/R, A, B, C, D**



acc to ČSN EN 50266 - Tests of fire-non-effusing cables and conductors



acc. to ČSN IEC 60331 - Insulation integrity testing

c) acc. to ČSN EN 50200 resistance of cables under fire conditions in emergency circuits

## Measurement of optical fibres

We offer the measurement of continuity, attenuation constants and connections (welding) of most optical fibres.



## Thermic(thermal) analysis laboratory

The material characteristics set by thermic analysis is based on measurements of molecular and macroscopic features. Thermic analysis serves for setting the calorimetric and mechanical features of substances if exposed to heat, e.g. thermac capacity, changes in weight, glass transitions, melting point etc.



Applications are most often used in research and quality controlling. They include material characteristics, process evaluation and safety controls.

**DSC** method (Differential Scanning Calorimetry) ranging from -65 to 450°C.

It measures the heat flow and temperature associated with transitional events in the material

- measurement examples:

- glass transition
- crystallisation
- melting point
- material purity
- phase transitions
- polymorphism
- desorption and evaporation
- ageing and thermal history
- specific heat
- kinetics

**TGA/SDTA** method (Thermal Gravimetric Analysis) 25 to 950°C

Detects material changes following the exposure to heat. It determines quantitative and composition and thermal stability of the material.

The function of SDTA (Single Differential Thermal Analysis) is a differential thermic analysis that observes the difference between the sample temperature compared to the reference temperature measured in an empty container. Such simultaneous measurement of TG and DTA curves makes the evaluation much easier.

- measurement examples:

- quantitative material composition (polymers, additives, fillers)
- thermal stability/decomposition
- absorption and desorption
- behaviour during evaporation of volatile materials
- effects of reactive gases (e.g. O<sub>2</sub>)
- determining the activation energy



#### Determining the material density

In practice, the measurements are carried out on samples of only several milligram weight using an analytical scale with the real division (d) of 0,00001g. Such scale must be equipped with optional accessories for stating the density of solid substances. It is based on the Archimedian principle.



# REFERENCES

## **Energetics:**

PP Prunéřov I. from 1994  
PP Tušimice from 1995  
NPP Dukovany from 1995 -2007  
NPP Temelín from 1995-2007  
Západočeská energetika (West-Bohemian energetics company) - VHV distribution centre 1995-6  
Atomic power plant Jaslovské Bohunice from 1996-2007  
Atomic power plant Mochovce from 1996-2007  
Škoda Pilsen-Energetics Machinery - United Arab Emirates Dubai (under Škoda Turbines) 1997  
ČEZ, Transmission systems Distribution Stations 440 and 220 kV from 1997-2007  
PP Iceland (under Škoda Energo) 1999  
Centre for Energetics Kladno 1999  
Taiwan PP (under Škoda JS) 2001  
Recovery of the control check system in NPP Dukovany 2002-2007  
NPP Chmelnická (under I&C Energo) from 2005  
NPP Rovenská (under I&C Energo) from 2005  
Neutron flux measurement (AE J. Bohunice) 2006 -2007

## **Tunnel constructions:**

Strahov tunnel 1997  
METRO Prague - from 1997-2007  
METRO Prague line IV.C from 2001-2005  
METRO Prague recovery after floods - from 2002 (including hermetic cable bushings)  
Tunnel Mrázovka 2004  
Tunnel Panenská 2006  
Tunnel Libouchec 2006  
Tunnel Valík 2006  
Tunnel Bratislava 2006

## **Refinery and chemical industry:**

Chemical plants - Ukraine - Odessa 1997  
Družba pipe-line 1999  
Česká rafinérská - Czech refinery - Litvínov, Kralupy from 1999-2005  
Refinery reconstruction Greece 1999  
Central headquarters and central control system of Česká rafinérská Litvínov and Kralupy in 2000  
Reconstruction and modernisation of Klaus units in Česká rafinérská in Litvínov in 2000  
Belarus refinery 2000  
Reconstruction of tank units -Arab Contractors Egypt 1999-2000  
Hydrocrack in refinery PO Naftan - Novopolotsk, Belarus in 2004  
Intensification of stock plastic capacities of the Czech Republic 2005  
Gasoil Deep Desulphurization Unit Slovnaft SR 2004  
Destillation – Litvínov 2006  
MOLL Hungary 2006  
KIRISHI Russia 2006  
Pavlodar Kazakhstan 2006  
SRT Cracking Nizhnekamsk Russia 2006

## **Other:**

Heating plant Pilsen 1996  
Airport Ruzyně Prague - from 1996-2005  
V SAT (NEXTEL) communication 1996  
Škoda Pilsen - transport engineering 1997  
Radio-relay connections Airport Ruzyně Prague 1996  
Moravian-Silesian Wagonworks Studénka 1998-9  
Supermarket „MAKRO“ Hradec Králové 1999  
Supermarket „TESCO“ Pilsen 2001-2002  
Hotel „Four Seasons“ Prague 2000  
Congress Centre Prague 2000  
Safety system MATRA for the Ministry of Interior of the Czech Republic 2000  
Slovak National Bank (new building construction) from 1999  
TESCO Olomouc 2001  
OLYMPIA Mladá Boleslav 2001  
KOC shopping centre Prague Smíchov 2001  
Optical networks Ostrava 2001  
Hospital Liberec 2001  
KAUFLAND Prague 2001  
„Flora“ Palace Prague 2001  
Hypernova Hradec Králové 2005  
Court House Prague 2005 - 2006  
Angel 12,13  
University College Hospital - FN - Gynaecology Pilsen 2006  
Ministry of Defense of the Czech Republic 2007